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VOL. 79 NO. 4

1953 American Cotton Manufacturers Institute meeting 55

Greenwood story — the unselfish Mr. Self, Man of the South . 65

Weaving "Dacron" polyester fiber yarns; some suggestions . . . 78

textile bulletin

APR 10 1953

APRIL • 1953

Sectional
INDEX

What Others Are Saying 18
Watching Washington 38
itorials 48
ening, Picking, Carding & Spinning 68
Warp Preparation & Weaving 76
aintenance, Engineering & Handling 84
eaching, Dyeing & Finishing 88
Personal News & Obituaries 92
ll News 96
For The Textile Industry's Use 93
Serving The Textile ustry 106
uthern Sources Supply 126
assified dvertising 130

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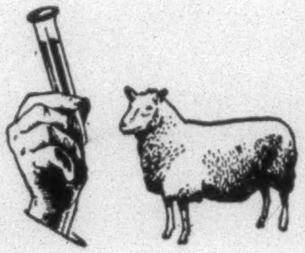

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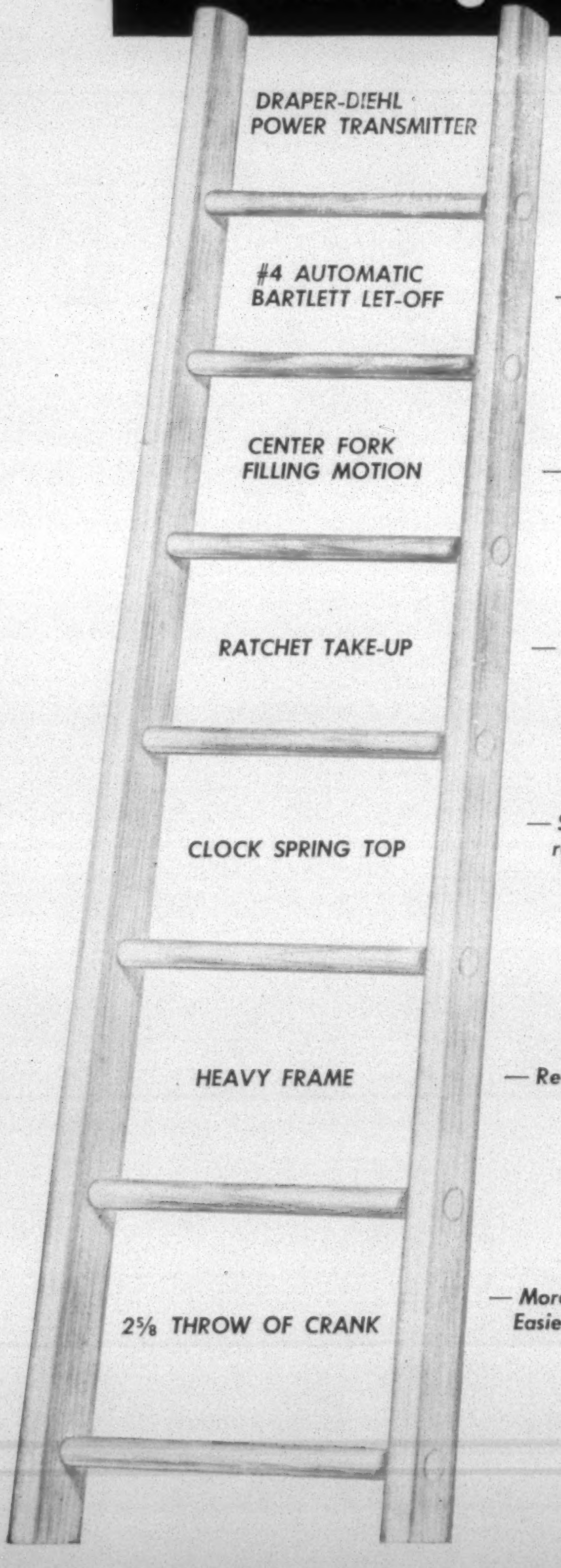

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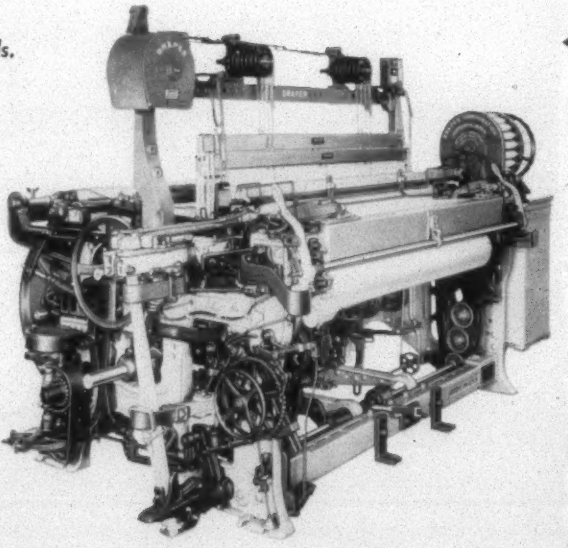

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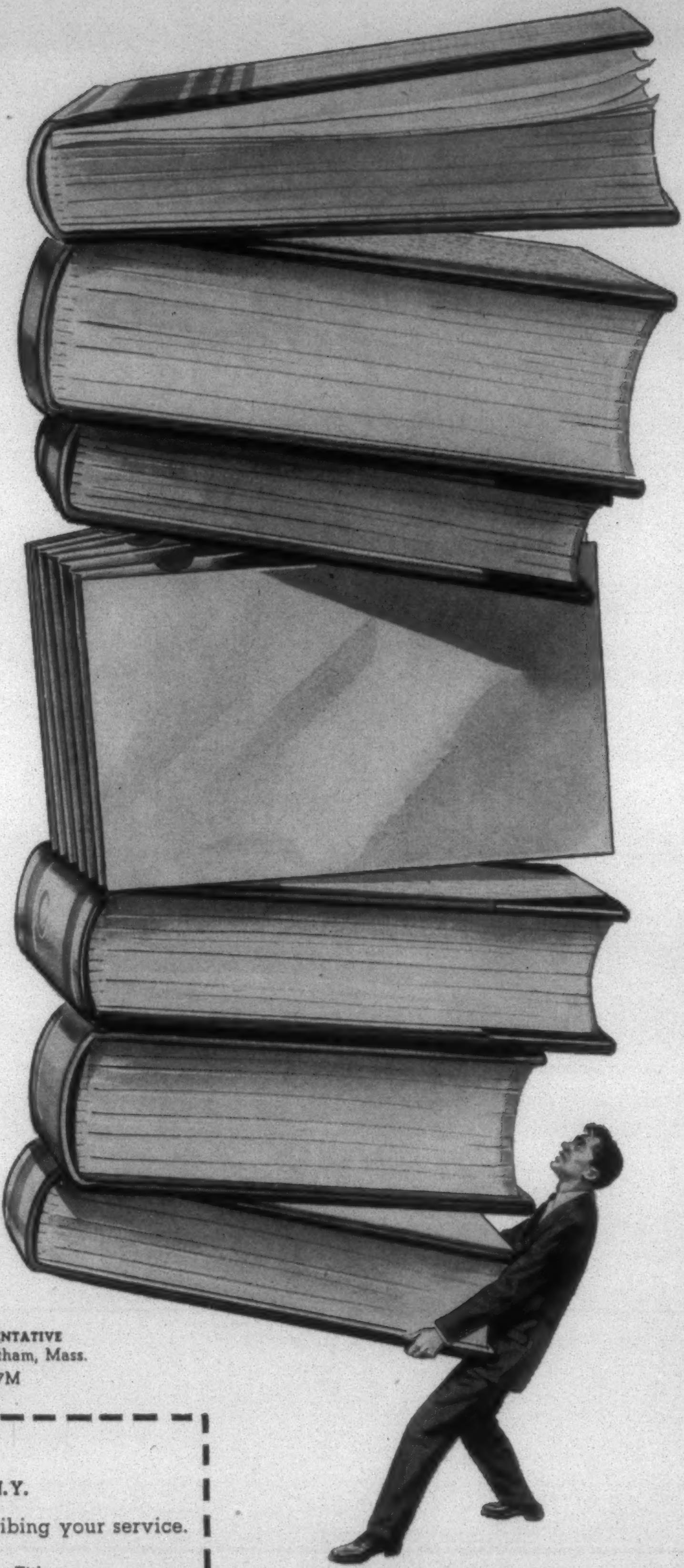

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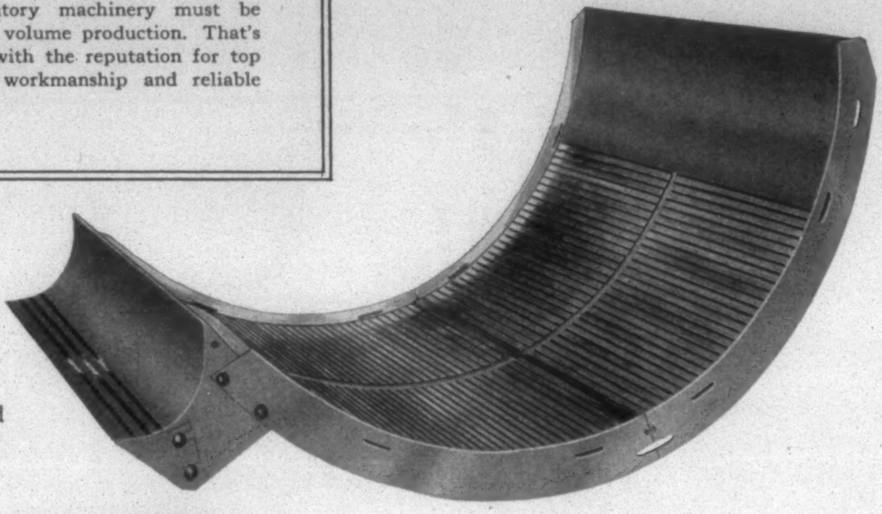

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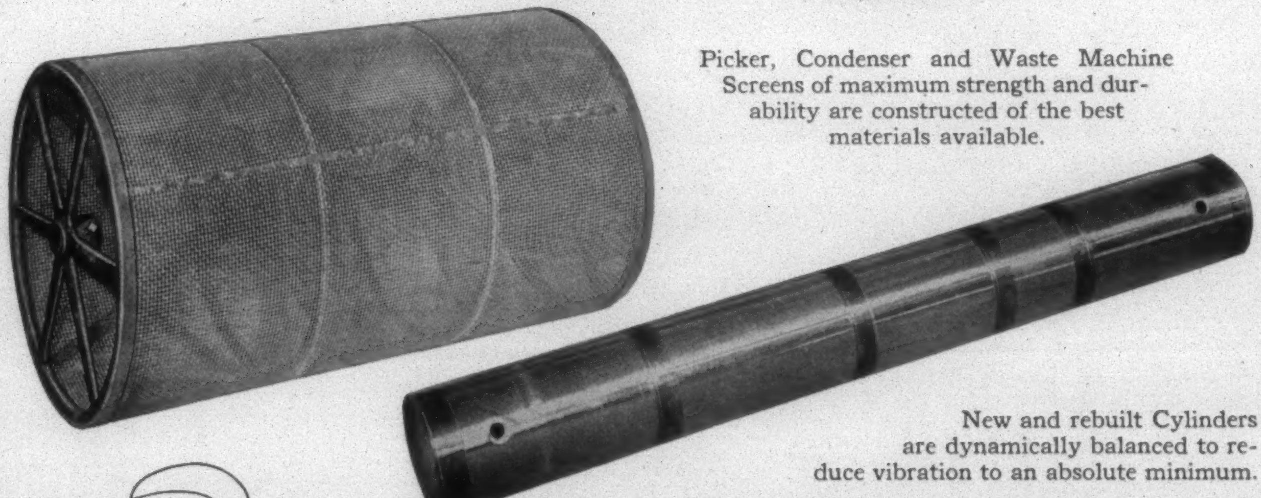

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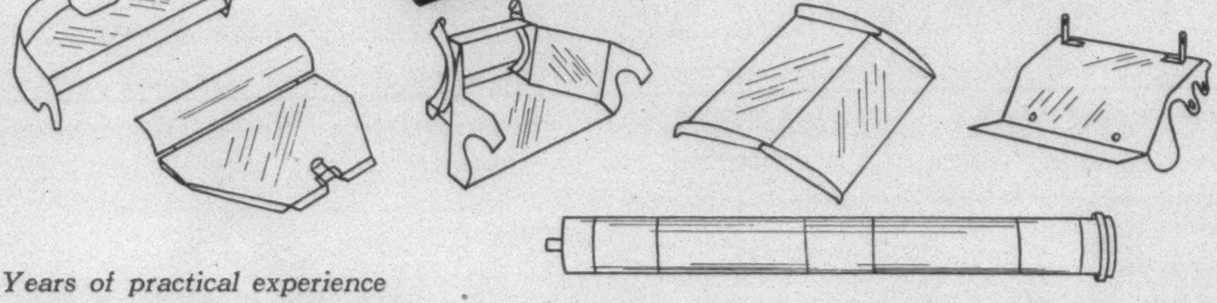

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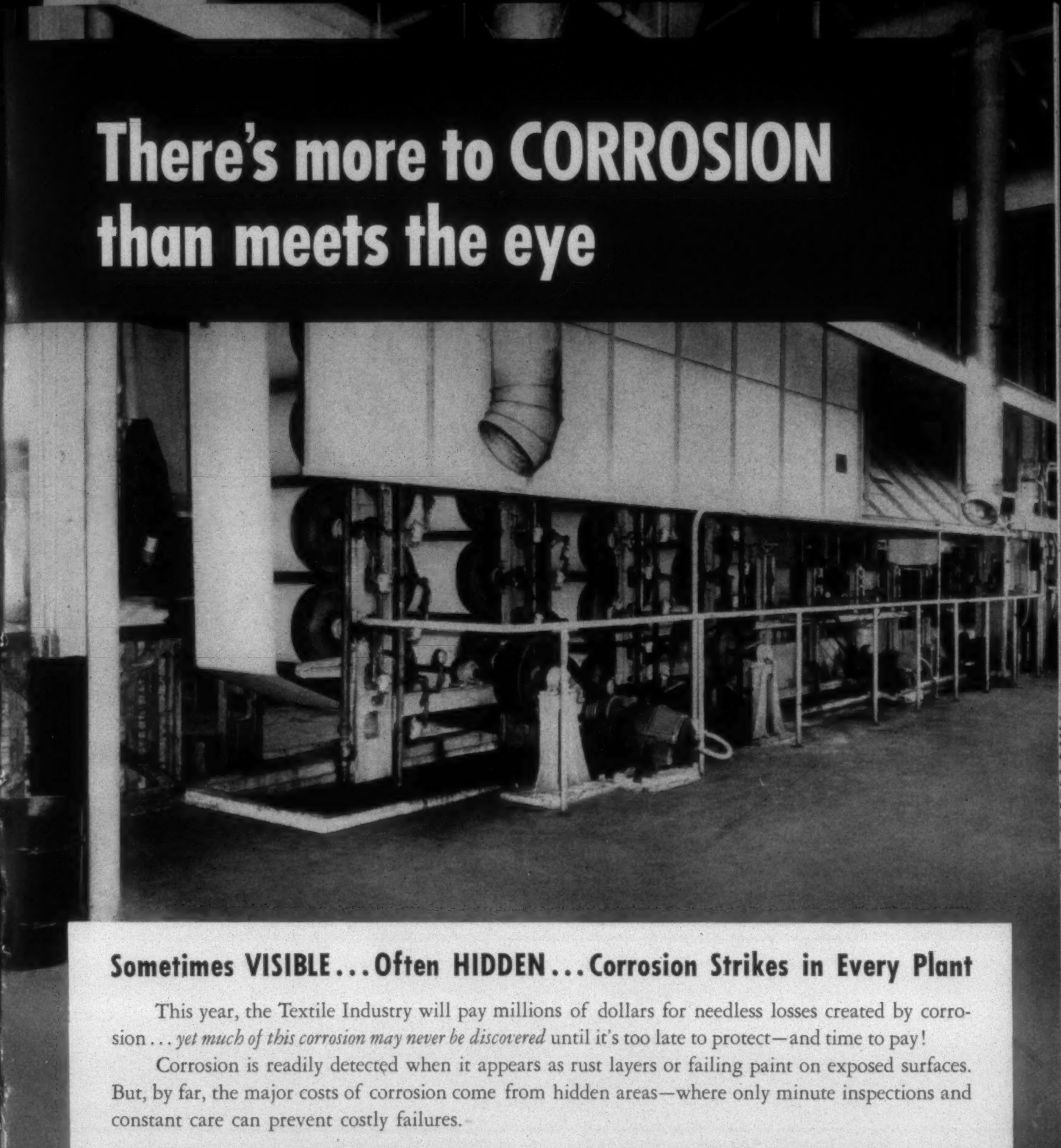
There's more to CORROSION than meets the eye



Sometimes VISIBLE...Often HIDDEN...Corrosion Strikes in Every Plant

This year, the Textile Industry will pay millions of dollars for needless losses created by corrosion... *yet much of this corrosion may never be discovered* until it's too late to protect—and time to pay!

Corrosion is readily detected when it appears as rust layers or failing paint on exposed surfaces. But, by far, the major costs of corrosion come from hidden areas—where only minute inspections and constant care can prevent costly failures.

YOU LOSE IN A "WAITING GAME"

Don't wait for rust or other visible signs to appear. Visible or hidden, corrosion will destroy costly equipment... halt production... cause unnecessary maintenance shutdowns... and threaten product quality. Thus, corrosion dips deep into your profits as it creates needless losses totaling thousands of dollars.

YOU CAN PREVENT NEEDLESS WASTE

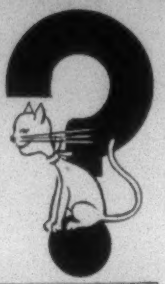
Check your plant for corrosion's presence. Double-check areas that may be vulnerable to *hidden corrosion.* If you would like help, an AMERCOAT Field Engineer will gladly assist you in making a thorough analysis. There is no obligation.

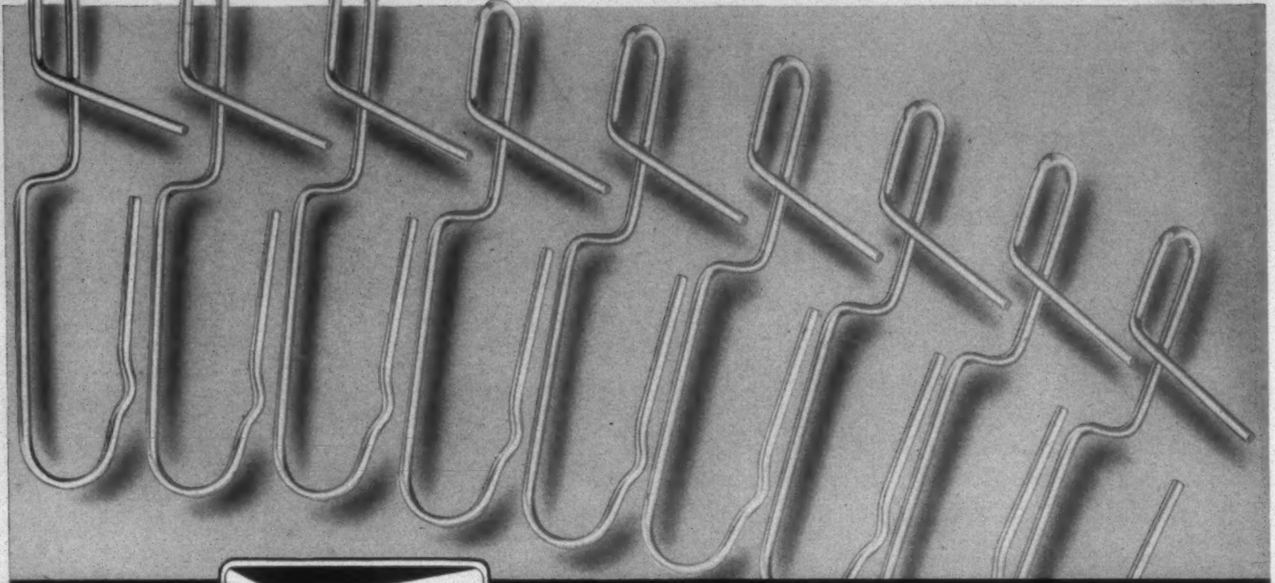
What is AMERCOAT?

AMERCOAT is a method of corrosion control. Not just a single product, but a complete LINE of coatings, individually formulated to solve or control specific industrial corrosion problems.

AMERCOAT CORPORATION

Do Your Textile Parts Have Nine Lives*





Many *Walhard* Chromium Plated Parts Do!

SAVE MONEY ON REPLACEMENT PARTS

Replacement parts are major cost items. They represent a serious challenge to profits. To save money on replacement parts, we have a simple, effective suggestion.

GET THE WALHARD HABIT!

Many mills have it . . . they regularly send us their worn chromium plated parts for replating. They get, in return, parts as good as new that give money-saving performance long beyond their original life.

*HOW LONG DO PARTS LAST?

The type of part and the wear it gets naturally dictate the life of a part — but we can prove to you that parts running in your mill right now can be replated several times, greatly extending their usefulness!

HOW DO YOU SELECT YOUR PLATER?

Actually, the difference between ordinary and good hard chromium plating is simply the difference in the experience and ability of the plater. You should, then, select your plater on his record of experience and ability, which is the reason why —

— WALHARD is the Leading Textile Hard Chromium Plater.

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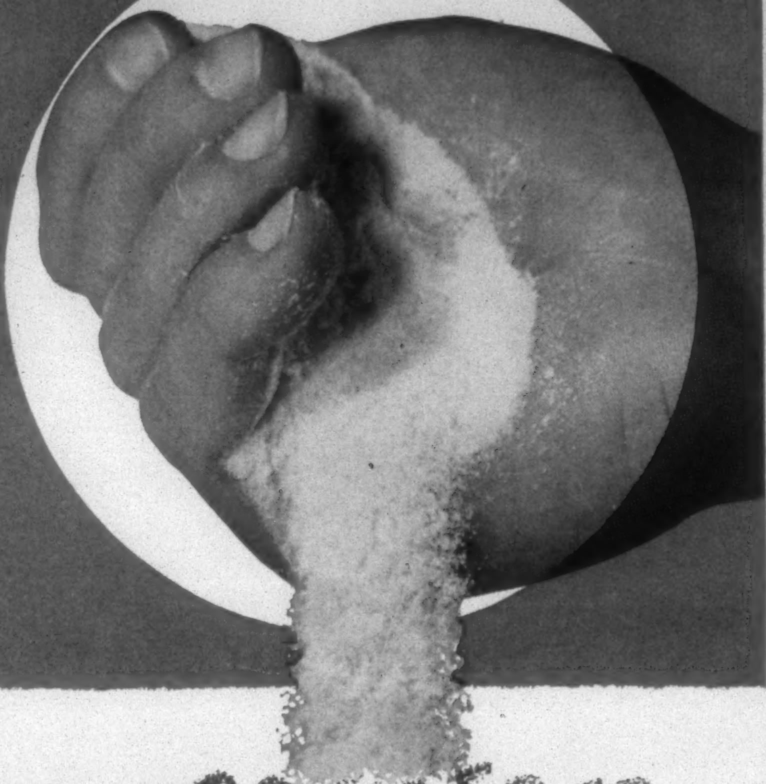

HOUGHTON POWDERED HOUGHTO-SIZE 475

Houghto-Size 475 is a different type of sizing agent, recently developed through Houghton research. It's an easy-to-use powder that contains all the ingredients needed in a warp size softener. This one-piece size produces a warp that weaves with maximum efficiency—and without the need for extra "builders." It has excellent binding properties—reduces shedding on both slasher and loom. Mill men tell us Houghto-Size 475 is helping them to produce better looking cotton fabrics than they ever turned out! Here's a suggestion. Order a handy fibre container of Houghto-Size 475 (about 300 pounds) and test it yourself. Or let us run a size check-up test against the method used in your mill. Ask the Houghton Man or write to E. F. Houghton & Co., Phila. 33, Pa.

HOUGHTON TEXTILE PROCESSING PRODUCTS

include a wide range of sizes, lubricants and oils—for cottons, woolens and synthetics. Descriptive literature will be mailed promptly upon request.

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Who's afraid of friction?

...with TYCOL lubricants on hand!

Take textile machinery, for example. There's a Tycol lubricant for any application you name: For instance, what about high speed spindles? . . . Tycol Alweave oils reduce thread breakage, hold spindle drag and bolster losses to a minimum. Loom gears? . . . Tycol Amortac oils have the necessary "stringiness" to keep them from dripping from exposed gears. Top rolls? . . . Use Tycol Akup or Ambrokup grease. You always get top performance with Tycol lubricants. Why? . . . Because each Tycol grease and oil is manufactured from high quality base stocks and *tailored* for a specific application. Get the full story of the entire Tycol line from your local Tide Water Associated office today!

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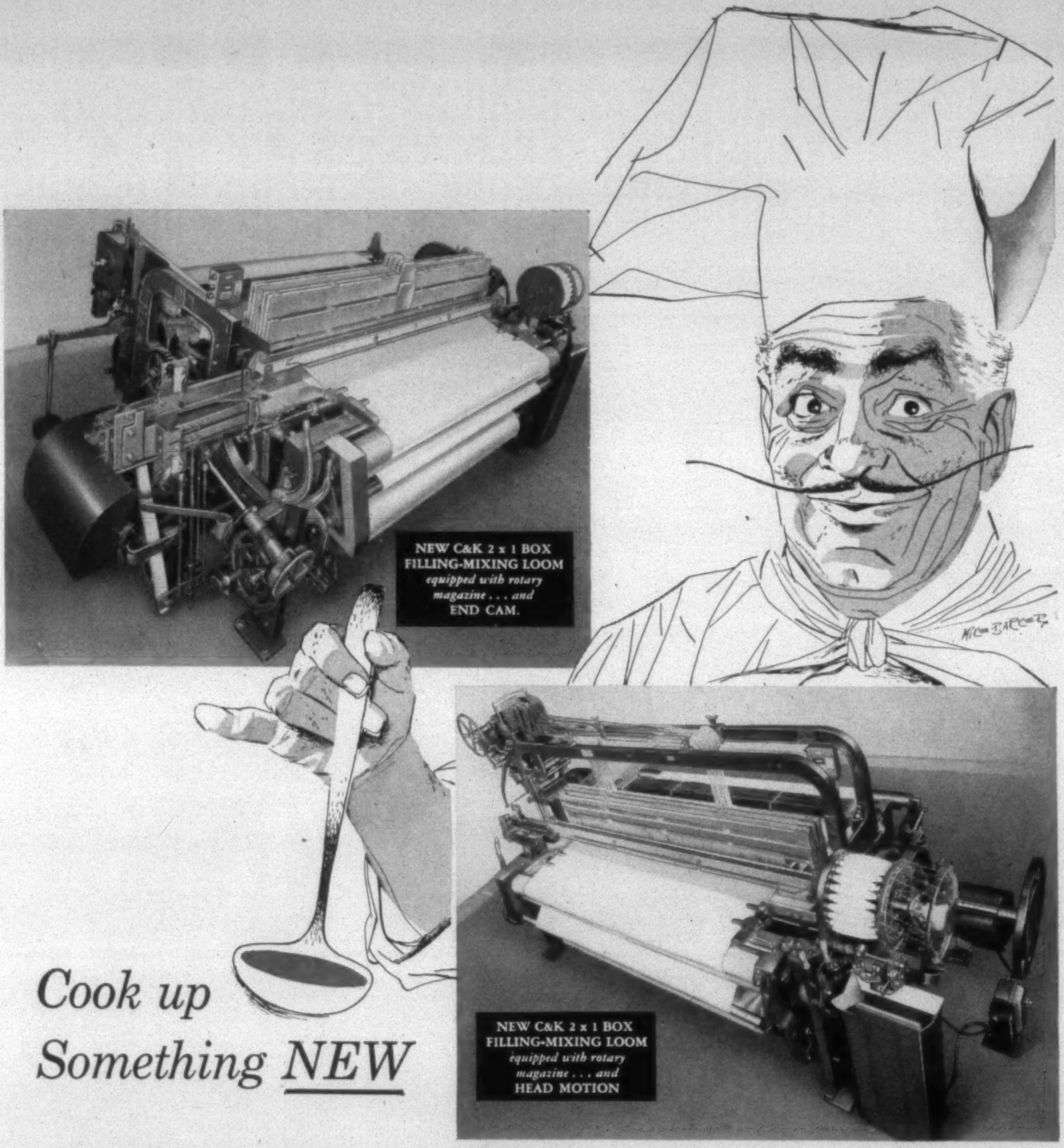

NEW C&K 2 x 1 BOX FILLING-MIXING LOOM *equipped with rotary magazine . . . and* END CAM.

NEW C&K 2 x 1 BOX FILLING-MIXING LOOM *equipped with rotary magazine . . . and* HEAD MOTION

Cook up Something NEW

. . . with C&K's Newest Filling-Mixing Looms

If you're interested in sweetening your mill's profits with a new trade promotion in any fabric that's single-color, 2 x 1, filling-mixing . . . then you're bound to be interested in these new additions to C&K's long-established line of Call Box Filling-Mixing Looms.

Here are some of the features of these new FM Looms: rotary magazine . . . batwing or cone picking . . . any type of shedding mechanism . . . head motion, dobby or end cam . . . less drag-ins . . . lighter lay, fully reinforced . . . *25% higher speeds.* These and other C&K features add up to better cloth and more of it, at lower cost per yard . . . *and lower cost per loom.* See C&K!

C&K
A Loom for every Woven Fabric

This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Woven Fabrics

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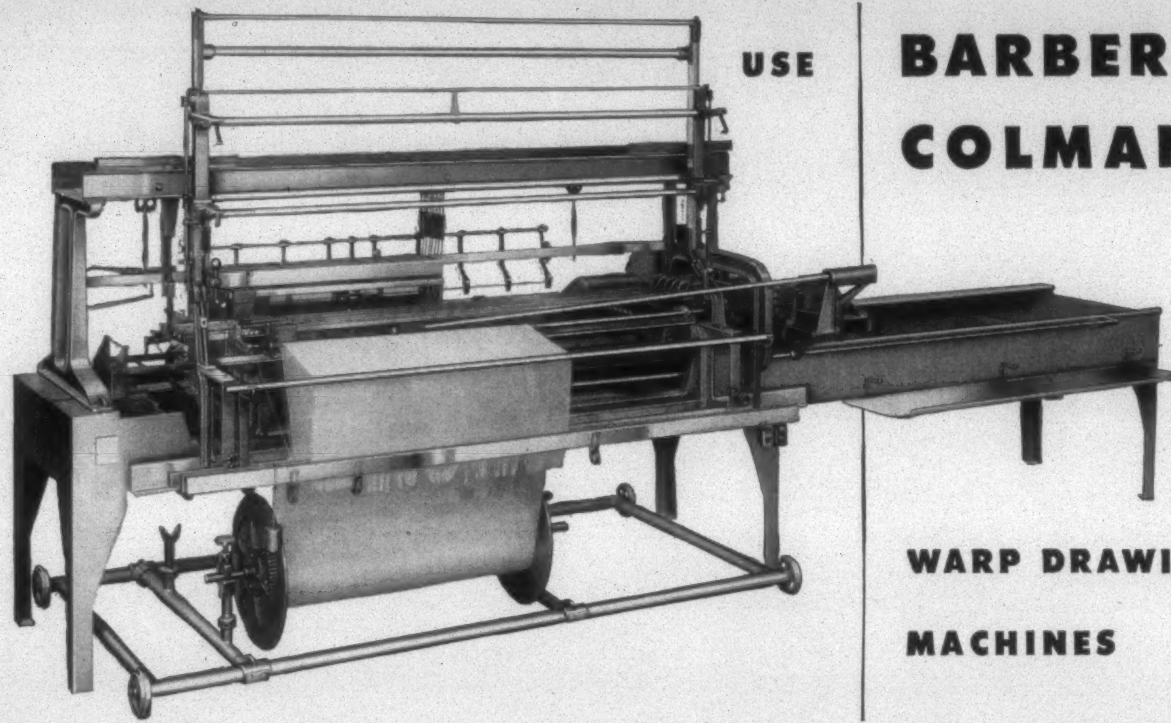
STRAIGHT WARPS

WEAVE BETTER



USE **BARBER-COLMAN** WARP DRAWING MACHINES

On this machine the warp is drawn through reed, harness, and drop wires accurately, rapidly, and almost automatically. The mechanical motions are carefully synchronized to eliminate errors. The details of the pattern are accurately controlled by a punched metal sheet. After loading, all the operator does is watch to see that things go smoothly, and make minor adjustments of the carriage position.

In talking with the superintendent of a large South Carolina mill about his recently-installed Barber-Colman Warp Drawing Machine, an interesting story developed. It seems they did not have more than enough work for one shift, but wanted two crews trained in case of a lot of style changes. In order to find training work, they started bringing in warps in which crosses had accumulated or drop wires had been stepped over the yarn. They found that these redrawn and straightened warps *improved the weaving* so much that they are running the machine two shifts regularly in order to redraw *all* warps periodically.

A recent study of mills owning Barber-Colman Warp Drawing Machines shows that 25% of these mills have more than one machine, and that 48% of the machines sold have gone to mills that already had at least one. These brief statistics indicate merely that many of those who have the machines like them well enough to reorder.

Note, for the future: The 1954 American Textile Machinery Exhibition will be at Atlantic City, April 26 through 30, 1954.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

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Having high tinctorial power this new National anthraquinone vat dye yields pleasing, well-covered bluish-red tones on many types of dress materials, thread and embroidery yarns. It possesses very good fastness to light, washing, perspiration, fulling, peroxide bleaching, chlorine, stoving, alkali and hot pressing.

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50% and 70-73% Liquid
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Light and Dense
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From our modern Carteret, New Jersey plant we can now deliver Westvaco Sodium Hexametaphosphate in carload, l.c.l. or truck load lots, alone or in combination shipments with other Westvaco Textile Chemicals.

With our own integrated output from elemental Phosphorus, we are producing excellent quality "Hexameta". If you use this glassy phosphate anywhere in your mill, we would like to quote on a share of your needs and ship a trial lot so that you can judge its quality in your operations.

And, of course, we always welcome the opportunity to serve you promptly and efficiently on your needs for any of the other Westvaco Textile Chemicals below.

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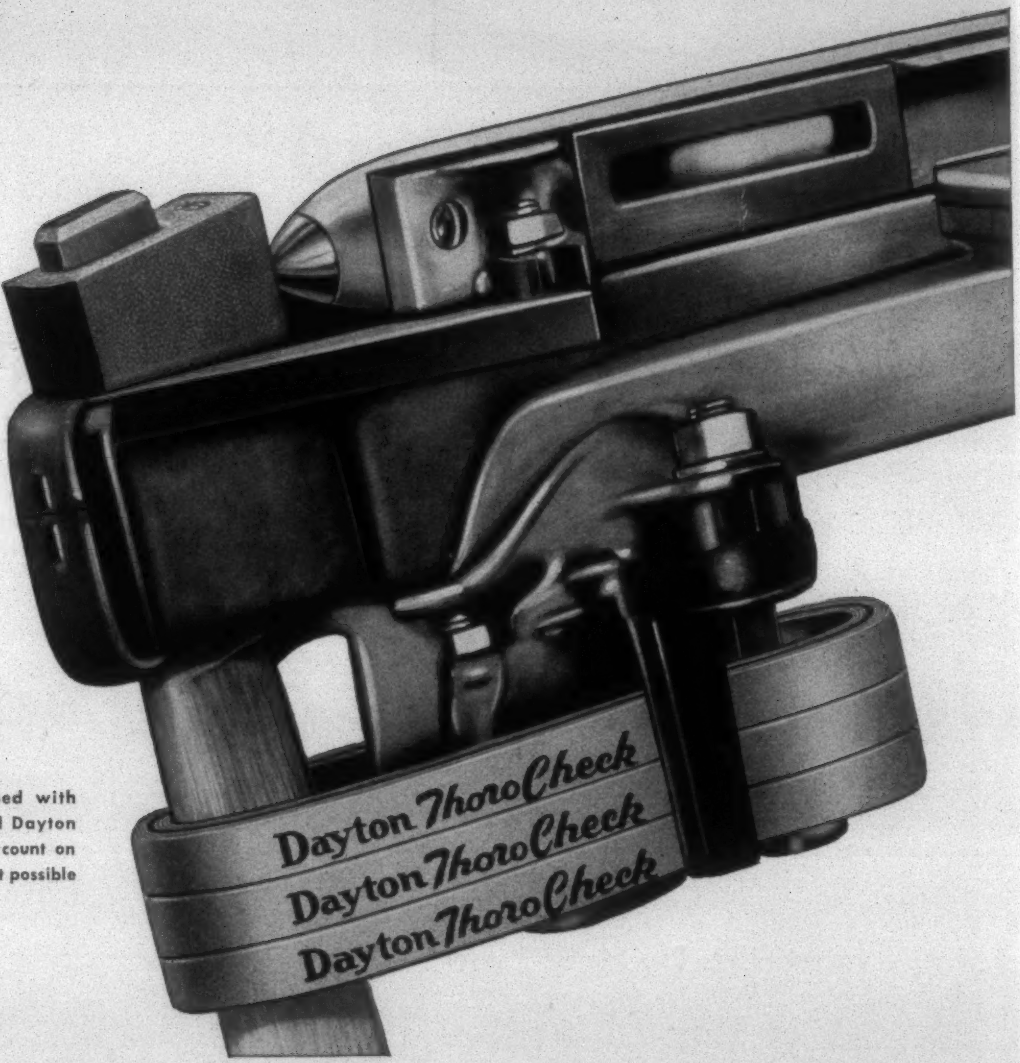
Many mills realize 25% New Endless



When looms are equipped with Dayton Thoro-Checks and Dayton Thorobred Pickers, you can count on efficient service at the lowest possible check strap and picker costs.

Alert, cost-conscious textile mills everywhere are adopting Dayton Thoro-Checks as standard equipment on their looms. Such action follows the results of many test installations, proving the amazing ability of Dayton Thoro-Checks to reduce check strap costs.

Actual installations show that this Dayton endless check strap outlasts other types by 25 to 50%, and in some instances, even more. For example, a large southern mill installed them on X-2 looms. Since then they have seen 5-day week, round the clock operation for over 10 months. And they're still in service. Old type straps lasted only two or three months on these very same looms. But that's not all . . . besides longer check strap life, the mill also realized considerable saving in maintenance labor since almost no adjustment of the straps was necessary.

There are definite reasons for such outstanding performance. Smoother checking by means of a snubbing action stops the stick with less impact on each individual strap, thus lengthening strap life. Also, an endless strap eliminates the drag over the stick of open end types—another step toward longer strap life.

You enjoy important maintenance savings, too, when you equip with Dayton Thoro-Checks. Once the straps are properly installed, there is almost complete freedom from adjustment, even on Monday morning starts. That's because the rubberized fabric construction is unaffected by temperature or humidity and doesn't "grow," even under the terrific pounding of high-speed looms.

to 50% Savings with Check Straps

There's an important safety factor with Daytons, too, both from the standpoint of damage and from lost production. In the event of breakage after long service, generally only one strap will break at a time, thus providing a safety factor not possible with one-piece straps. They may be replaced individually or in multiples.

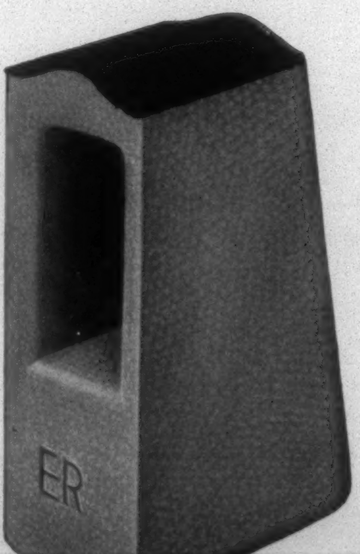
If your looms are not yet equipped with Dayton Thoro-Checks, it will pay you to try them. We believe you, too, will find that they pay for themselves many times over.

Dayton Thoro-Checks are made in a wide variety of sizes to fit practically all makes of looms. Get complete details, or better yet, order your Thoro-Checks today from your Dayton Textile Jobber or write: Dayton Rubber Co., Woodside Building, Greenville, S. C.

Here's why Dayton Thoro-Checks are so economical

- Outlast other straps by 25% to 50%
- Smooth checking
- Little or no adjustment
- No elongation
- Unaffected by temperature or humidity
- Individual or multiple replacement
- Protect binder and picker stick
- Give greater picker and shuttle life

Save on Picker Costs, too, with Dayton Thorobred Loop Pickers



Dayton Thorobred Pickers are built strong to take the pounding of high-speed shuttles for long periods. In fact, they often last twice as long as ordinary pickers.

Because of the slight tilt with which the picker has been designed to fit the stick, there is always perfect shuttle contact. As a result, Dayton Thorobred Pickers keep their shape, stay put on the stick, and practically eliminate jerked-in fillings. Also, Dayton's front edges are rounded to eliminate hanging filling, while its narrow back permits free non-wear on the lay-in strap.

These are only a few reasons why so many mills prefer Dayton Thorobred Pickers. For complete details get in touch immediately with your mill supply jobber or write direct to Dayton Rubber.

Dayton Rubber

Since 1905

TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING

Dayton Rubber Company, Textile Division
Woodside Bldg., Greenville, S. C.

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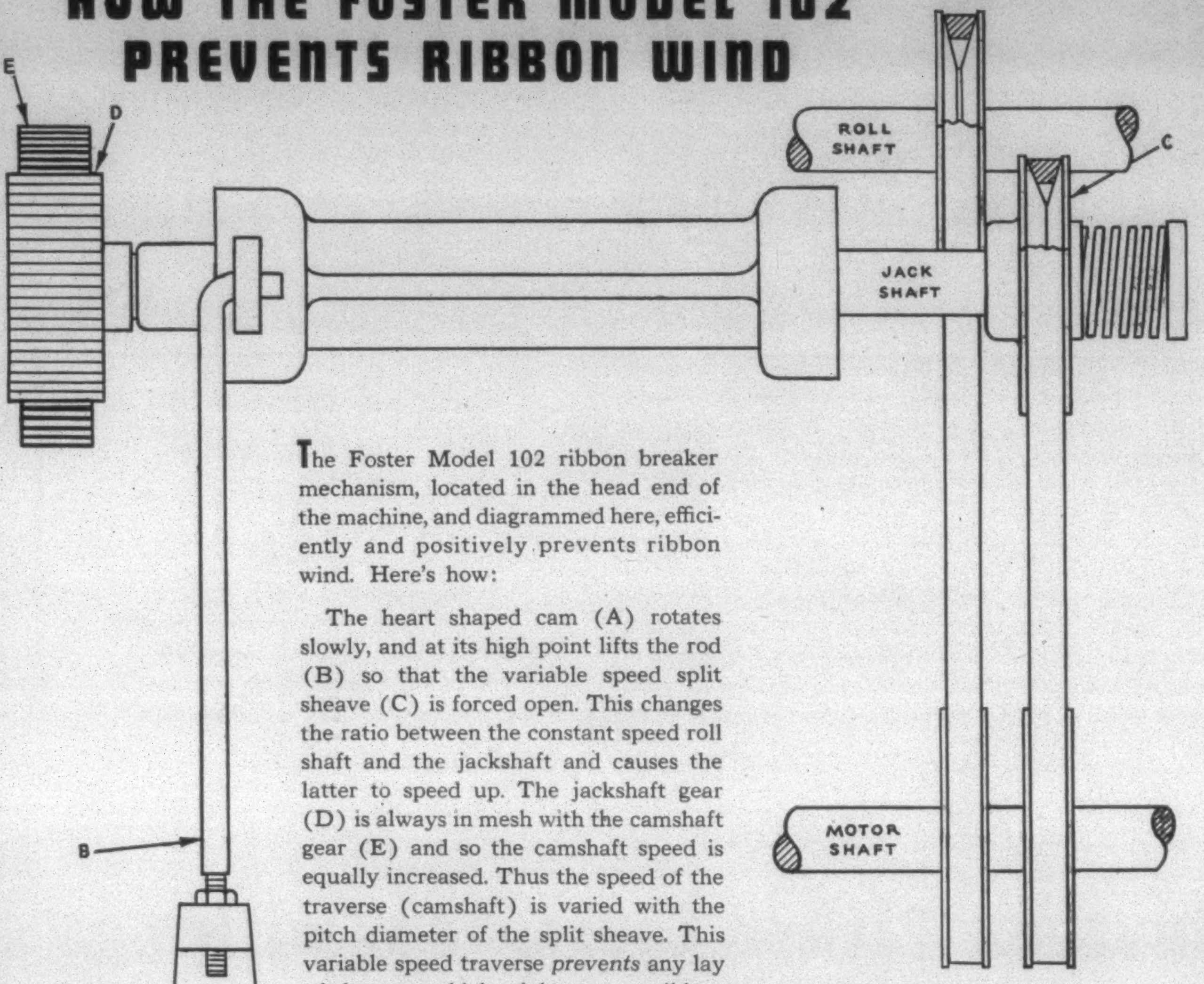
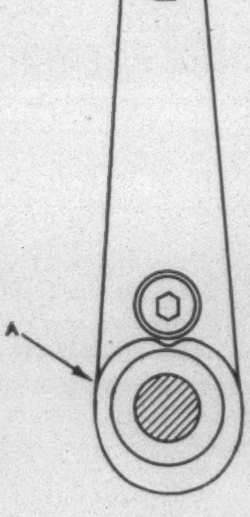
TIGHT BINDING

HOW THE FOSTER MODEL 102 PREVENTS RIBBON WIND

The Foster Model 102 ribbon breaker mechanism, located in the head end of the machine, and diagrammed here, efficiently and positively prevents ribbon wind. Here's how:

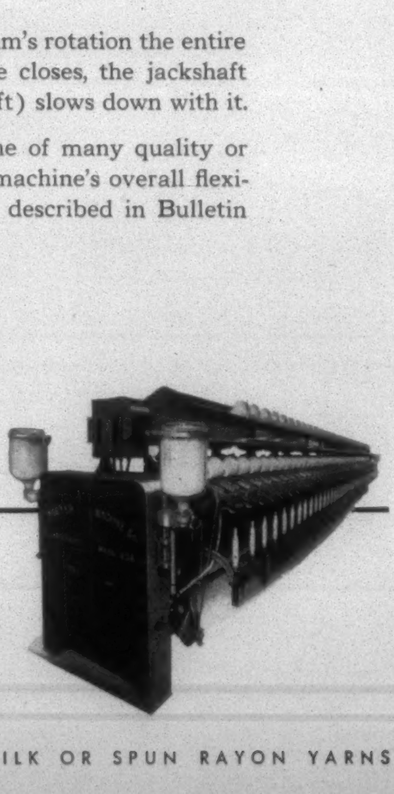
The heart shaped cam (A) rotates slowly, and at its high point lifts the rod (B) so that the variable speed split sheave (C) is forced open. This changes the ratio between the constant speed roll shaft and the jackshaft and causes the latter to speed up. The jackshaft gear (D) is always in mesh with the camshaft gear (E) and so the camshaft speed is equally increased. Thus the speed of the traverse (camshaft) is varied with the pitch diameter of the split sheave. This variable speed traverse *prevents* any lay of the yarn which might cause a ribbon.

Similarly, at the low point of the heart-shaped cam's rotation the entire procedure is reversed. The rod lowers, the sheave closes, the jackshaft slows down and the speed of the traverse (camshaft) slows down with it.

This fully automatic ribbon breaker is only one of many quality or economy features of this Foster Model 102. The machine's overall flexibility is the most important feature of all and is described in Bulletin A-95. Send for your copy today.

FOSTER MACHINE CO.
Westfield, Massachusetts

Southern Office: Johnston Building, Charlotte, N. C.; Canadian Representative: Ross Whitehead & Co., Ltd., 1475 Mountain St., Montreal, Quebec; European Representative: Muschamp Taylor Ltd., Ashton-under-Lyne, England.



FOSTER MODEL 102

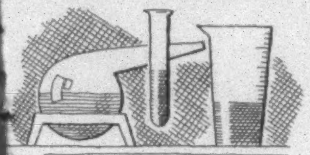
The Flexible Winder

FOR COTTON, MERCERIZED, WOOL, WORSTED, MERINO, SPUN SILK OR SPUN RAYON YARNS

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N.Y. April, 195

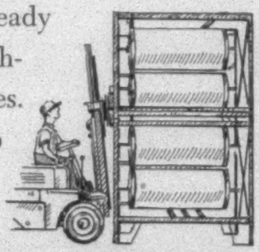
Broad Avisco Research Program Brings Continuing Benefits to Knitting Industry



TEXTILE RESEARCH

A continuing program of research and development has enabled Avisco to serve the knitting industry with a number of pioneering achievements.

Typical are the steady improvements in acetate yarns, and the methods of packaging them on tricot spools ready for use on high-speed machines. Special Avisco shipping racks provide efficient storage with maximum protection of yarn and final fabric quality.

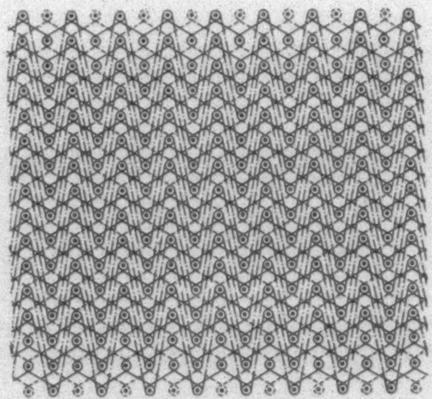


SHIPPING RACKS

Avisco filament rayon is widely used in men's sport shirts and other apparel, permitting vat-dye performance. Avisco rayon staple—one of the most useful of all modern fibers—is made to precise specifications of denier, luster, length and crimp for knitting requirements. Used alone or blended with other fibers, it is suitable for spinning into yarn by any standard spinning system.

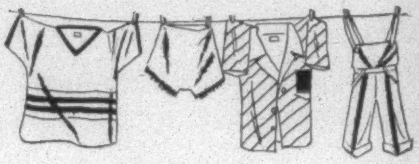
SPORTSWEAR

Improvements in knitting machines and finishing techniques have resulted from research at Avisco's Textile Research Department, Marcus Hook, Pa., while the development of Filatex elastic yarns—latex core covered with yarns such as rayon, nylon, cotton—has brought notable advantages to quality swim suits, foundations, men's hose, and other knitted apparel.



TRICOT FABRIC DESIGN

Textile chemicals developed by Avisco have helped solve many static, lubrication, and stabilization problems. Outstanding among Avisco's chemical developments is the Avcoset process, that gives true, permanent washability to rayon, offering important new opportunity for knitted rayons. And Avisco's continuing research brings constant improvements in dyeing, finishing, and fabric development.



FINISHES

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To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

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2 FABRIC DESIGN
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*TMC & CCC

AMERICAN VISCOSE CORPORATION

Better Managers

FOR the last hundred years every generation of industrial managers has faced ever-increasing and more complex problems. The solution of these problems has been the subject of countless conferences, and we are still far from all of the answers. The first industrial executives were business men. The next crop were a combination of engineers and production men, because the principal problem was production.

As machines solved, to some extent, the problem of production, the demand shifted to men who undersood marketing, merchandising, and financial problems necessary to the expansion of business. With the expansion of the corporation came more and more government intervention in the form of legislation in the field of trade and labor policy. The chief executive found he had to add more men to the management team to specialize in these new fields. He found himself in the position of a co-ordinator of the efforts of a long line of managers of which the operating supervisor is no small part.

Specialization was necessary even in the field of employee relations. But more and more emphasis was placed on the mechanics of business and as a result the worker at the bench and the loom was neglected to some extent. Management made the mistake of thinking that as long as the worker was well paid he needed no further attention.

Education is now in reach of everyone who will take advantage of it. Industrial payrolls are filled with workers who have availed themselves of a high school education or at the least some degree of grammar school education. There is very little known by the supervisor or general manager that is not available to the worker. As a result, we find a greater number of our workers on the same intellectual level with the man whom they look to for direction.

The progress made in the field of education and communication has caused a change to come to the work place too. It is no longer just a place to earn one's daily bread. It is a free society in which each in his own way expresses himself through his skills and services to the end we call *production.*

Whether we like it or not, this is the spot demanding the immediate attention of the well-equipped manager, and he had better be well-equipped, for this is no place for the weak, weary or ill-equipped.

The man who is taken from his job in the plant because he is the best operator and placed on the management team overnight is the man who suffers most and is in for trouble. The company that expects much from this ill-equipped individual is in for disappointment. *If he is worthy of authority, he is worthy of training.* He should be trained in the simple economics of business so that he will think like a manager. He should know enough about the company and its product to answer any question put to him by those he will supervise. He must master the art of simplicity of expression so that he may convey his knowledge to those under his authority. He must look, act and dress like the man he is expected to be. *We must be sure that every man that is selected for a management position is well trained for the job he will be expected to do.* He must have the tools of his trade and the knowledge to use them successfully.

The manager of today has to assume the responsibility for the *intellectual leadership of the people on his payroll.* Many men have failed because they did not have the training to do this type of leading. Many more are failing today who do not know they are failing—and will not know—until it is too late to do much about it. The opposition to our *American Free Enterprise* has made great headway in our plants because we have failed in the job of *intellectual leadership.*

The battle for the loyalty and cooperation of our people has gone against us because they have turned to others for the leadership we should have provided. The opposition has been able to sway public opinion in their favor because we do not speak up for the system that has made it possible for us to be managers. When civic organizations in our communities want someone to tell the story of Freedom of Enterprise from the speaker's platform, too few industrial men will take the time to oblige. Too often we find professional politicians, who know few of the real facts, telling the story. What can we expect, when our indifferent attitude allows us to shirk our duty. *Let someone else do it* will not work any longer. If we do not have the men on our team who can carry the ball, we had better get them fast—it is later than we think. There is a game to win and we cannot win with our managers on the bench.

The people in our factories are not only a part of a system of production, they are working, worrying, thinking and voting individuals of a free society. They are subject to periods of extreme elation and periods of despondency that will take the form of efficiency and quality workmanship, or the lack of it. We should be equipped to cope with this problem, for we all have it, managers and workers alike. It should be the privilege of every work to bring his most delicate problem to his supervisor.

We are all in the business of producing goods *with people, for people,* using *people's money* to make life in these United States more abundant for *more people.*

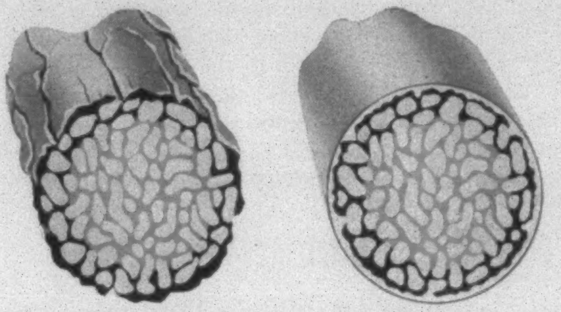
The consumer and the investors are well aware of where they stand, but the worker is dependent upon us to keep him posted. It is management's job to do this, but we are not doing too well at it. The record stands to prove we are not doing too well, and the reason we are not, is because our men of management are not leading, and our people are losing faith in us because of our negligence. The record shows there are some plants in which the employees feel they need a bargaining agent to reach management with their problems. *The managers of today are faced with the task of finding their way back to their people.* The president, vice-president and the general manager cannot talk with each employee every day. This being impossible, the job of personal contact with the workers has to be left to the other members of management, the department head and the operating foreman. These men can do the job and do it well *provided they are trained to do it.* The company of any size which does not have a well-rounded program of constant management development will, in the long run, be weighed in the balance and found

NOW!

CUT IDLE LOOM TIME

improve fabric quality with

O-W LUBEKOTE



See the difference between these two cross-sections of sized yarn

(greatly enlarged for illustration)

1. After sizing and drying the resultant film is normally rough.

2. O-W Lubekote covers the rough film with a uniform smooth coating.

In (1) see how the dried sizing has flaked and does not completely cover the ends. This roughness causes loom stoppages. In (2) see how O-W Lubekote covers the sizing, fills in the surface cracks and makes the yarn smooth. Reduces loom stoppages.

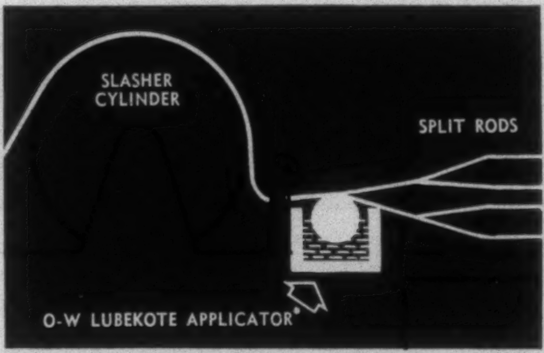
Use over any sizing on cotton and synthetic spuns—synthetic filament yarns, and without sizing on the higher twist filament yarns.

On cotton and synthetic spuns O-W Lubekote reduces end breakage, fly and shedding. Gouts, slubs pass through harness with far less hanging and breaking. Particularly effective on seed, nub and slub novelty yarns. *On synthetic filament* yarns O-W Lubekote reduces broken filaments, split ends and prevents floats—with no dirt pickup.

Not sizing, O-W Lubekote is a plastic wax-like substance which is transferred to the warp after the warp is sized and dried.

Yarn coated with O-W Lubekote is proven by actual mill production tests, to have far greater resistance to abrasion by the harness, reed and shuttle than that obtained by any other method.

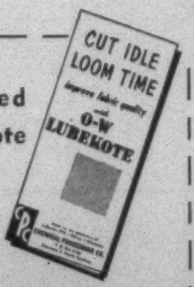
And because O-W Lubekote provides shuttle and box leather self-lubrication, picking and shuttle flight is greatly improved.



Yes . . . you can CUT IDLE LOOM TIME and IMPROVE FABRIC QUALITY by having a new invention installed on your slashers . . . the O-W Applicator **(*Patent Pending)** . . . built expressly for the purpose of applying O-W Lubekote to yarn after the warp is sized and dried.

Write today for more detailed information about O-W Lubekote

Questions and answers tell the full story. Find out how you can increase your weaving efficiency and improve the quality of your fabrics. Write to Chemical Processing Company, Box 5186, Charlotte, N. C.



CHEMICAL PROCESSING COMPANY

Makers of Chemwax, Lubewax PVS, Gel-ex and O-W Lubekote

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wanting. This program must lay stress on the fact that the product we produce is not as important as the system that makes it possible for us to produce it. If one company goes into the hands of the receivers, it is not so much of a tragedy. But if the system under which we operate gets into the hands of the hand-out artist, it *will* be a tragedy.

If we want the loyalty and co-operation of our employees, we have to get out in the plant where they are. If we want to influence their thinking, we must know what they are thinking. If, after we find out, it is not what we hoped, we then have our job laid out for us. It may not be encouraging at first, but as we go along it will bear fruit far beyond our expectations. Regardless of how tough the job, we must win the industrial worker back to management or fail in our duty.

We would not like to find ourselves in the position of Moses when he led the children of Israel out of bondage in Egypt. He had to stop just short of the Promised Land so that a new generation could be raised up, that was fit to go in and possess it.

The workers in our plants are Americans of the highest order. All they need is qualified leadership. It is our *duty* to furnish that leadership. If we fail now, we may not get another chance.—By Verne O. Bobbitt, personnel director, Consolidated Textile Co., writing in *Trained Men,* publication of International Correspondence Schools.

Business Leaders

THE nation's business leaders are worried about a shortage of well-rounded young executives to succeed them. Yet their habit of preferring specialists to those with a broader education helped bring it about.

Surveying 50 universities and colleges, *Fortune* magazine has found that the movement away from liberal arts toward single-minded specialization is proceeding at a rapid pace. The percentage of those with an education in the true sense of the word is declining, while those who have devoted themselves to one subject, usually of a "how-to-do" nature, are beginning to inherit the earth.

The reason? The personnel men from the corporations who come around each Spring looking for likely material, actively seek specialists. The word gets back to the underclassmen, who turn to specialization in the belief that a lot of knowledge about one thing will bring a cash premium later.

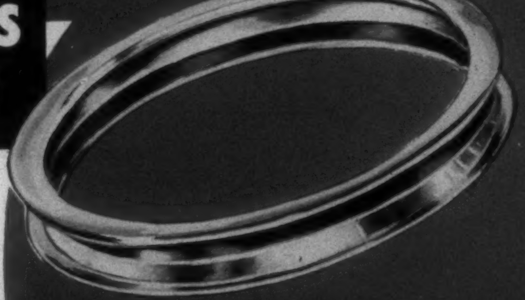
Apparently specialization helps a man get a job, but does not carry him to the top of the ladder. Vocational education does not provide the mental discipline, the broad view of history, the understanding of human, economic and political forces, that today's captains of industry need.

What to do about it? *Fortune* points out that the private liberal arts colleges are about the last bastions of broad culture left in the land. If business wants truly educated men, business can endow schools that produce them, and then hire them after graduation.—*The Atlanta* (Ga.) *Journal.*

Subsidizing New England

CHARGES by Ted Forbes, executive vice-president of the Cotton Manufacturers Association of Georgia, that the Administration is playing politics at the expense of the taxpayers by

FAMOUS RINGS



THEY HELPED NAPOLEON . . .
AND WERE GIVEN THIS RING

The six who helped the Little Corporal escape from Elba were given this ring as a memento.

Install these rings throughout
AND THEY WILL HELP YOU

They'll help you escape from slow-break-in, frequent replacement, ragged performance . . . because they are engineered that way.

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It makes a big difference . . . *a great big difference* . . . as to what you feed the brush. You can buy cheap paint . . . save money per gallon . . . but man, oh man, how much *more* paint you have to buy! And of four times greater importance . . . because labor represents 80% of the total cost of a painting job . . . you'll pay much more for putting it on the wall.

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You might have to pay a few more pennies per gallon. But you can thin Barreled Sunlight more. You buy less paint. And you'll make savings . . . *big savings* . . . in labor.

Barreled Sunlight goes on easier . . . covers more area per stroke . . . gives you more yardage per gallon and in less time or fewer costly man-hours. What's more it hides better, lasts longer, stretches out the years between repaintings.

This can be proved easily and quickly with a simple, on-the-wall test between Barreled Sunlight and any other paint you're now using. Write, and your nearest Barreled Sunlight representative will gladly show you how.

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Barreled Sunlight *Paints* ®

Ask about Barreled Sunlight's "Engineered Color" — partner of light in creating better seeing and working conditions.

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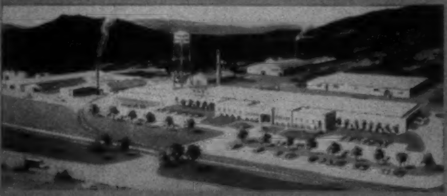

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showing preference to New England mills in awarding contracts is disturbing indeed. It is the type of thing Southerners fought with some success in the last Administration.

New England mills are being awarded contracts, Mr. Forbes said, irrespective of bids, as a result of political pressure on the Defense Department. Although we have been accustomed to favoritism to New England since the early days of the Republic, within the past few years it seemed the section would have to compete with the rest of the nation fairly. If this is an indication that this is no longer so, the South and the rest of the country must fight back with every means at their command.

In the first place, New England has received far more defense contracts on a per capita basis than has the South. The Federal Government is helping now to finance a huge development there of heavy industry and metallurgy. Even that doesn't satisfy them. They want further federal subsidization of inefficiency, hazards of climate and backward methods. Socialism is wrong for the rest of the country, but if it is federal handouts for New England, that's just ducky.

Southerners have long been fed up with discriminations by New England interests at their expense. It has cost us billions in the past. But now it looks like another all-out campaign to mantain unfair competitive advantages at our expense.

Fortunately, under the Democratic administrations of the past 20 years we were able to overcome some of the discriminations through virtue of the power of Southerners in Congress. That's why is was passing strange that many of the Southern textile interests now being discriminated against were big contributors and loud boosters of the G.O.P. in the last presidential campaign. They are getting a poor return for their money.—*The Atlanta* (Ga.) *Constitution.*

Queer Idea Of Merger

WALTER REUTHER'S terms for a merger of C.I.O. and A.F.L. unions sound more like a comedian's idea of the outcome of an argument between a man and his wife. The big boss of the C.I.O. lays down four points. The first is that C.I.O.'s "industrial union structure" must be preserved. Since it is a merger, not a federation, that is proposed, Mr. Reuther in effect asks for complete capitulation on the part of the craft unions of the country.

Besides this initial stumbling block, Mr. Reuther's other three terms become academic in interest. There never would have been a Congress of Industrial Organizations in the American labor picture if old line, conservative unions based on crafts rather than single industries had been willing to take this more radical line. It is not likely that they will be willing to throw in the sponge now.—*Dallas* (Tex.) *Morning News.*

Too Much Tolerance?

"TOO many people are thin-skinned these days," writes the Richmond *Times-Dispatch*, "ready and eager to protest any imagined slight against their race, religion, occupation or national origin."

Can the edictor document his case? He makes a good try with the following incidents:

(1) Attorney Algonquin J. Calhoun, for years one of the comic mainstays of the Amos 'n Andy show, is no longer called a lawyer; his new title is "consultant" which, a TV publicity man explains, makes "for a better show."

(2) The chairman of the Committee on Public Relations of the American Bar Association sent a letter to a theater playing "The Crucible," saying he had received a "number of protests . . . regarding certain lines disparaging of lawyers or the legal profession. . . ." The play deals with the Salem witchcraft trials of 1692 (roughly 250 years ago) and stresses the atmosphere of hysteria and bias in which those trials were conducted. Arthur Miller, who wrote the play, replied to the bar committee chairman as follows:

> The growing sensitivity of people to any sort of open and frank discussion of important issues is no service to civilization, let alone law and order. I wrote a play about a man who happened to be a salesman ("Death of a Salesman") and several organizations of sales people flew to arms. Now it is the lawyers. If I am to back away from these objections you must surely see that I shall be forced to write about people with no occupation whatever.. But then cafe society will probably feel put-upon.

(3) Organized chambermaids in New York are protesting another play

Being Firm ...!

Does Have Its Points

The points when considering appropriate FRAME CONSTRUCTION built for the fabrics they were intended for, added up are;

1. STRENGTH AND RIGIDITY — To take any punishment high speed production inflicts.
2. LIGHTNESS IN WEIGHT — Provides ease of handling plus the strength required.
3. Constructed so that all wood parts are made from selected seasoned lumber free from knots; all metal parts being of rust resisting metal and designed for fool proof function of the frame.
4. Smooth face — no parts protruding — no rub, no cut.
5. Finger Tip controlled Heddle Bars of the finest tempered steel for quick release.

STEHEDCO FRAMES will always be the Frames for high speed production, because they were designed for it. There is a STEHEDCO FRAME constructed for the material you are weaving equipped with Stehedco patented Drawtex Heddles.

Consult your nearest Stehedco or Southern Field Engineer for the information you require.

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Steel Heddle
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now on the Manhattan boards. In it a maid strolls through a hotel room, "dabs listlessly at the furniture, makes up the bed with an umbrella in it, but has plenty of advice to offer (the leading characters) about their problem." Hotel and Club Employees' Union, Local 6, A.F.L., demanded that a note be put in the play's program declaring that the maid in the play bears no resemblance to union members.

To the Richmond editor's documentation we would add two more examples of the new "American tolerance"—which is a good thing—if not carried to far: (1) When a British movie company made "Oliver Twist," the film was picketed by certain groups because its villain, Fagin, was a Jew. What was the company to do, call Mr. Dickens back and have him change his story? (2) Al Capp got so many letters from groups who thought his "shmoos" were caricaturing them that he dropped the project.

America of the mid-20th Century is touchy about tolerance, but it may well be that the word is being marshaled to the defense of causes which don't justify its use at all. Certainly Mr. Miller voices the opinion of all artists and men of letters when he refuses to refrain from the discuession of important issues of the day simply because they portray unfavorably characters who happen to belong to one group or another.

One Calhoun doesn't make a bar association any more than one Fagin makes a pogrom.—*Greensboro* (N. C.) *Daily News*.

It's A Strange World

A CURIOUS commentary on this topsy-turvy world is the *London Observer's* remark that capital investment in Great Britain is considerably less than in Russia and the satellite countries.

Great Britain is considered one of the capitalistic powers. The countries in the Russian economic orbit are of the Marxist persuasion and are engaged ostensibly in a world-wide effort to destroy capitalism.

By the yardstick of capital investment in the tools of production, however, Russia and the satellites appear on the way to becoming greater capitalistic powers than Great Britain which once was banker for the world.

What is happening is that Great Britain is permitting its industrial machinery to wear out because so much of its wealth is being sluiced off into the barren welfare schemes inherited from the socialists.

After payments to shareholders industries in Great Britain are able to save on average only half of what they were saving before the war. The greatest problem now confronting the British government is to find some way of reviving capital investment in the tools of production.

And that could become the greatest problem confronting the United States unless there is a reversal of present tax trends. It would be a strange upshot of the cold war if it resulted in making capitalists of the communists and communists of the capitalists.—*Daily Oklahoman*, Oklahoma City.

New Labor News

A LARGE part of the news of union labor in recent years has fallen into a pattern. Unions and managements could agree on higher wages and pass the cost on in the form of

NON-FLUID OIL
TRADE MARK REGISTERED

Ups Loom Production

Drip-less, waste-less NON-FLUID OIL, the leading lubricant in the textile field, *ups* loom production and outlasts ordinary oils 3 to 5 times. It remains *in* the bearings where it belongs—and off the goods and floor so provides *constant* lubrication, keeping machines in *steady* service and holding down oil bills.

Dripping, leaking, ordinary oil lowers loom production because it won't stay in bearings and creeps and spatters on warps, goods, and floor, causing oil spot "seconds."

A-#00000 grade NON-FLUID OIL is recommended for general oiling of looms. Write for Bulletin T-20 together with a free testing sample and prove for yourself that NON-FLUID OIL provides cleaner and better loom lubrication at less cost than ordinary oils.

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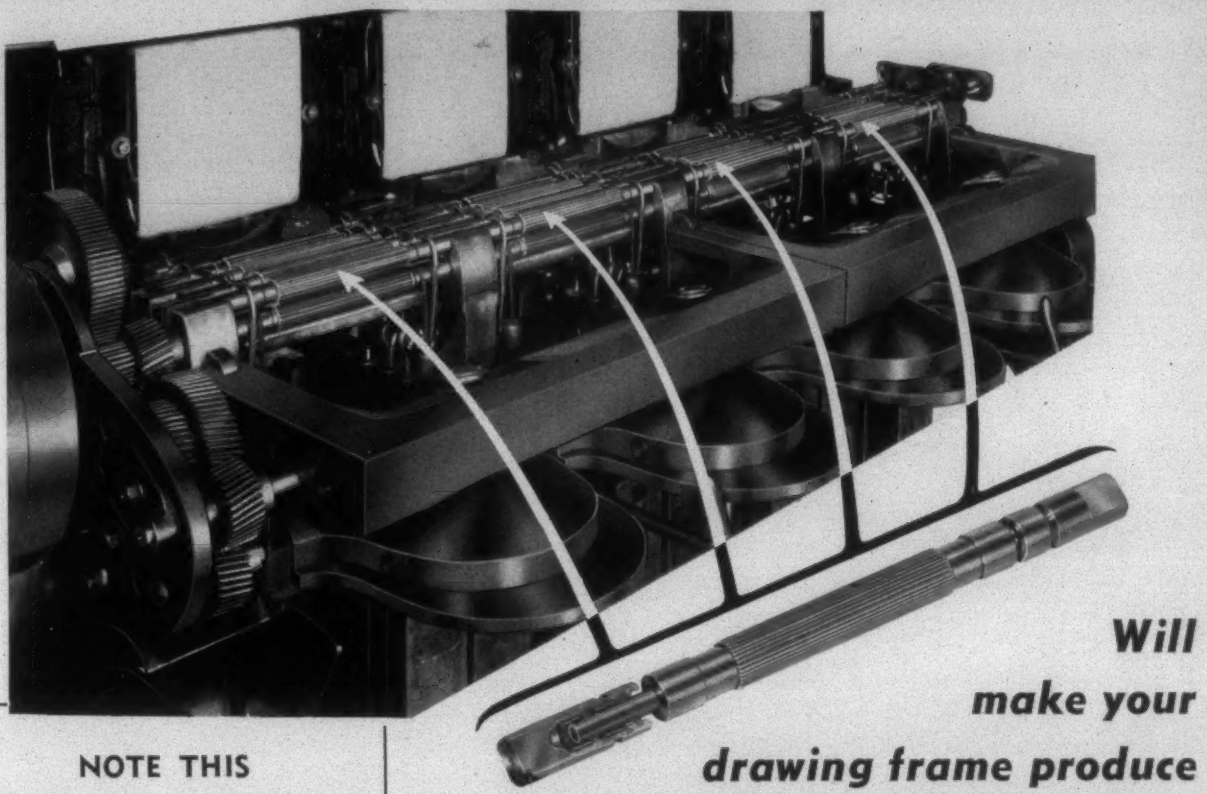
At Last!

A NEW METALLIC DRAWING FRAME ROLL



Will make your drawing frame produce a far better grade of sliver

NOTE THIS

The collars and necks on the new GOSSETT metallic roll are thoroughly hardened and then scientifically tested. The tolerance on the flutes, collars, and neck is plus or minus one-half of one thousandth of an inch. The run-out of straightness will not exceed plus or minus one thousandth of an inch. GOSSETT also manufactures common or cushion type drawing rolls with the same tolerance as mentioned above.

Here's what you get when Gossett re-builds your drawing frame!

In addition to installing the new GOSSETT metallic roll, the top rolls are equipped with GOSSETT roller bearing shells (there are none better); new stands, new calender rolls, new tension train of spiral gears and studs, new drafting gears and studs, and new trumpets are installed; and the coilers and can tables are re-built. You get back an old drawing frame better than when new.

GOSSETT will also re-build drawing frames with the 5-roll system in the same manner.

In the mills now using their old drawing frames that were recently re-built by GOSSETT technicians who installed the new GOSSETT metallic drawing roll, the results have been amazing!

It required months and months of research and designing to develop the new GOSSETT metallic drawing roll. The flutes on this new roll are so designed that it is now possible to produce cotton or synthetic drawing sliver that is far superior in quality to anything known in the past. And, as most everybody knows, quality counts more today than ever.

Find out for yourself what a difference quality makes. Let GOSSETT re-build your drawing frames and you, too, will get better quality sliver than ever before.

Write for full particulars and estimated cost

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This amazingly simple electronic device accurately measures and indicates mositure content, condition or regain on slashers, tenters, dryers, etc. Easily installed by your own mechanic.

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1. Slasher room was a production bottleneck. Warps were too dry . . . weaving difficult . . . shedding too high. Operators feared wet warps and, consequently, produced dry ones.
2. 16 MOISTURE MONITORS were installed and slasher operators were told to regulate slasher speed to keep MOISTURE MONITOR dials on "Normal."
3. Slasher room production increased 30%. ONE SHIFT WAS CUT.
4. Weaving efficiency shot up immediately. A tremendous reduction in shedding was effected. A BETTER PRODUCT WAS MADE POSSIBLE.

THIS MANUFACTURER has now installed 18 additional MOISTURE MONITORS for both slashing and finishing applications.

**NAME ON REQUEST*

In your own plant the MOISTURE MONITOR can help you speed up production and protect quality, just as it has done in many large and small mills in this and in foreign countries. The price is surprisingly low. May we give you full particulars? Write or wire us today.

STRANDBERG ENGINEERING LABORATORIES

416 W. Market St. Greensboro, N. C.

higher prices. With less than enough of many products to go around, the public paid.

Wage controls often failed to control. Sometimes the regulations delayed increased wages and sometimes they forced part of the changes from the wage scale into "fringe benefits," but the control was weak.

The labor vote has been of high importance to the Washington administration.

Every year the nationwide federations of unions re-elected William Green and Philip Murray, and their voices became familiar as the spokesmen for labor.

Recent changes have been many.

Production for the public, as well as for the needs of Korea, has increased until price controls have been removed with only scattered price rises. To pay higher wages with higher prices is different now than two years ago, or at any time in recent years.

The new administration in Washington was elected with enthusiastic support of businessmen while labor's political apparatus was working against it.

Mr. Green and Mr. Murray have died, and their replacements are less familiar to the public.

A more gradual change, under way for years, is a shift away from the idea of labor as a distinct part of the public to the understanding of a general public which includes labor. The great increase in union membership brought some of the change, but there has also been an increase of union participation in community activities.

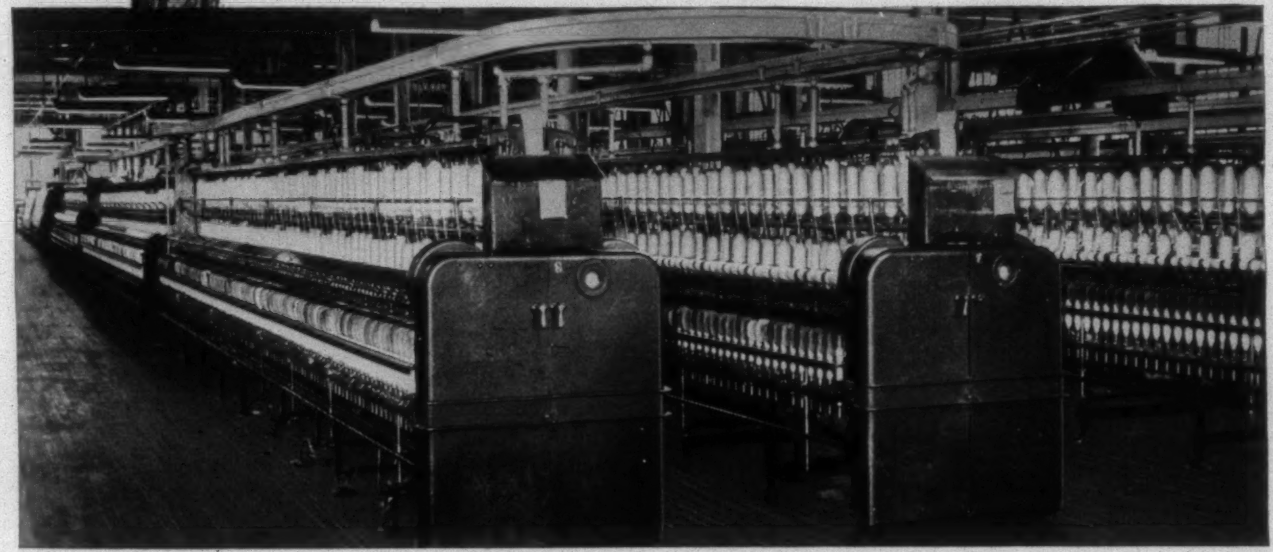
We notice more frequent consideration of profitable business as the foundation of good wages. Aside from the numerous profit-sharing plans and worker ownership of stock, there is the increasing interest in profitable futures for the companies that will pay future pensions.

One thing unchanged is the old question of what to do about the Taft-Hartley Act. It may be that the changed situation of labor will first be apparent when Congress takes up that question again.

Beyond that, we have little idea where the changes will make themselves known in the news, but the old pattern is gone and there is good reason to expect the unexpected from now on. —*Commercial Appeal,* Memphis, Tenn.

"We CUT MAINTENANCE COSTS by 13%"

...says Norman Garlington of Brookside Mills, Knoxville, Tenn.



To turn out 15 million yards of cotton and blended fabrics yearly, Brookside Mills keeps its 65,000 spindles and 1046 looms working smoothly with Sinclair Textile Lubricants.

Two years ago, General Superintendent Norman Garlington called in a Sinclair Lubrication Engineer and asked him to make recommendations for better and more economical lubrication.

After a thorough study of the mill, the Sinclair Engineer set up a comprehensive and simplified lubrication procedure and recommended specially developed Sinclair Textile Lubricants.

Since the new procedure was adopted, Mr. Garlington reports that, "Sinclair Textile Lubricants have cut our maintenance costs by 13%. In addition, we have *reduced* inventory... *saved* storage space... and *cut* misapplication."

About important extra services, Mr. Garlington writes, "The Sinclair Research Laboratory has been consulted on several tough problems and results were quickly obtained."

To get in touch with a Sinclair Lubrication Engineer, call your local Sinclair Representative or write to Sinclair Refining Company, 600 Fifth Avenue, New York 20, N. Y.

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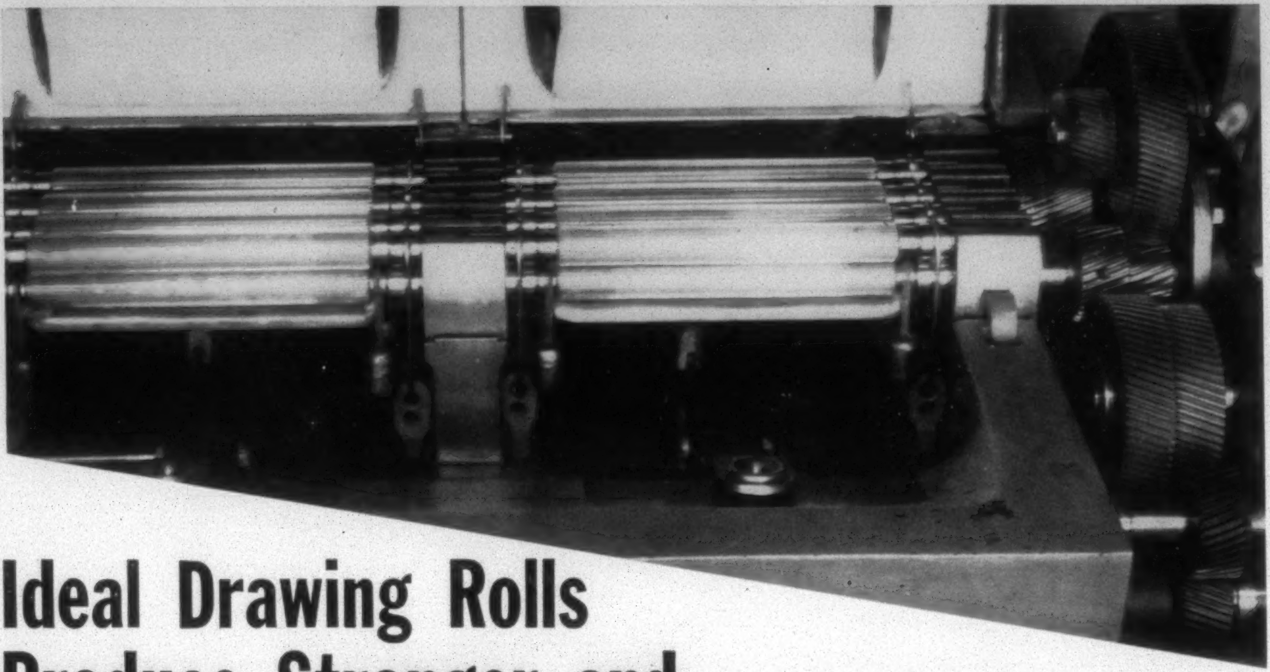

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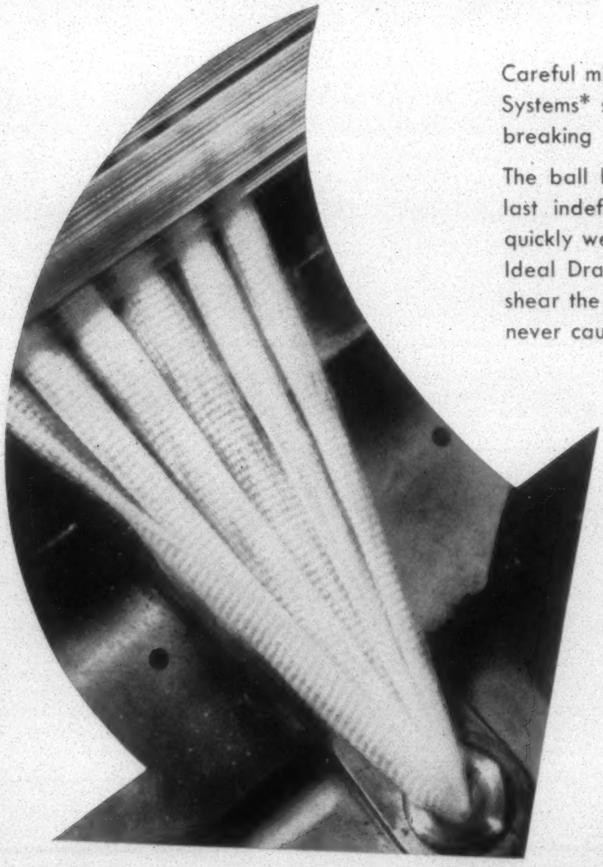

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Write or wire for full information.

(Unretouched Photograph)

*Patented

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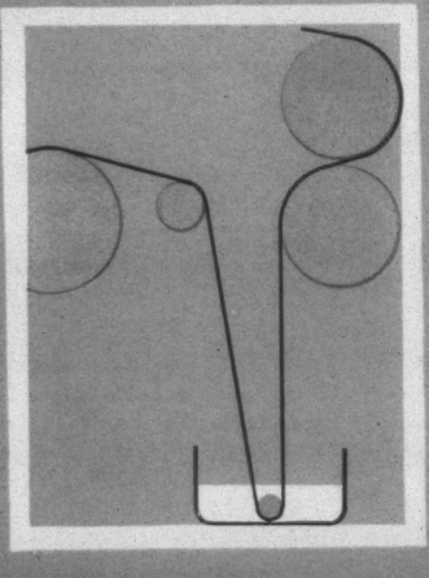

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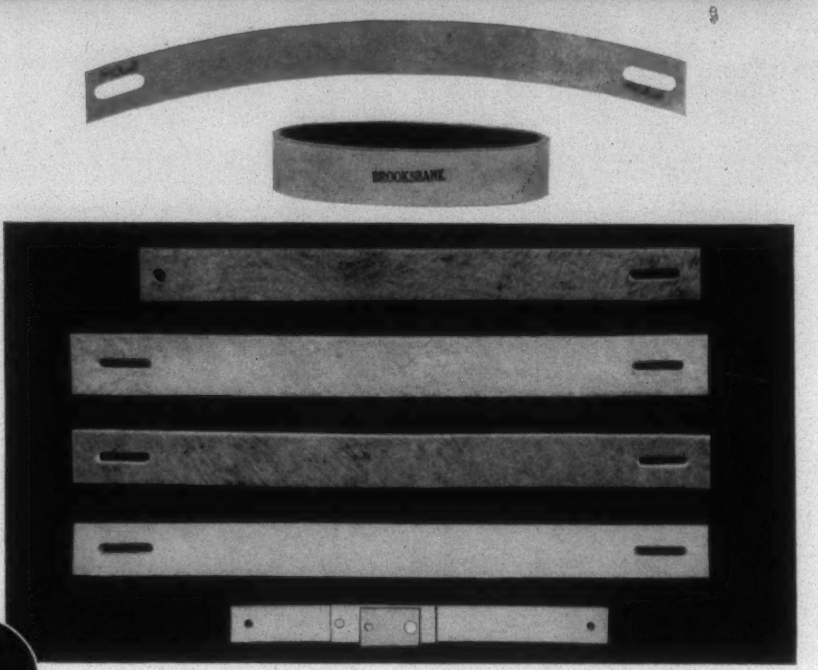

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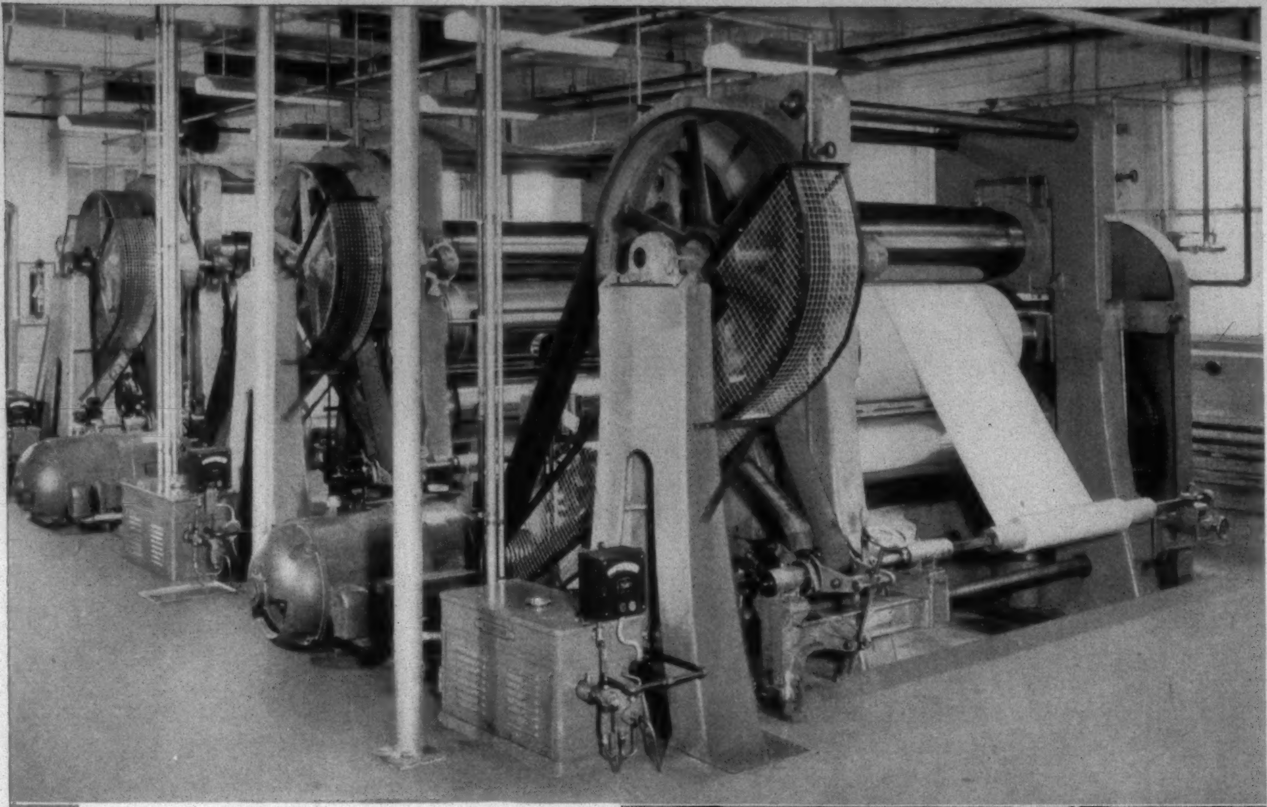

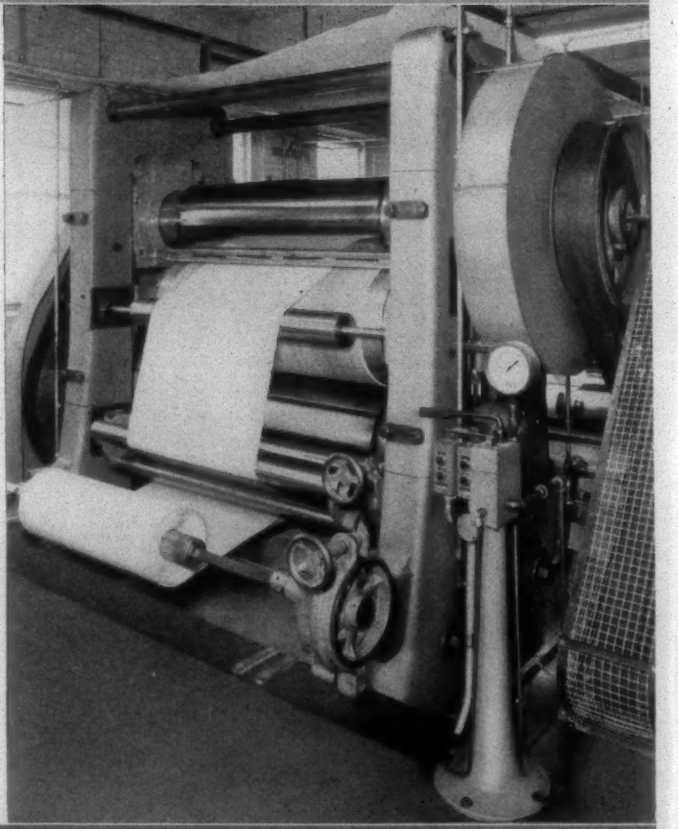

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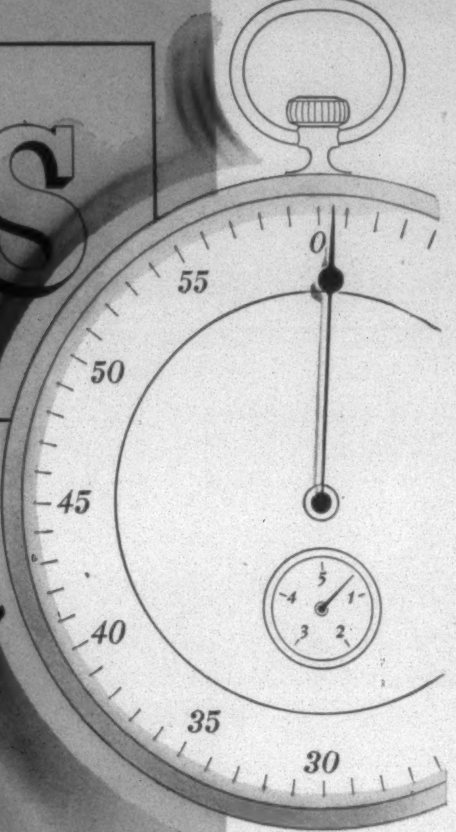

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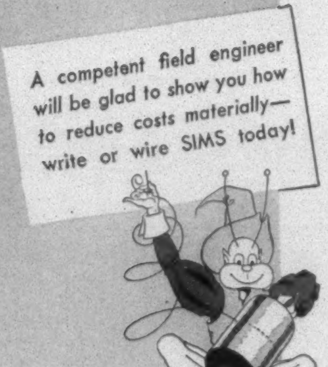

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MILL OPERATING REPORT
ON CLEANING COTTON WITH AIR
1

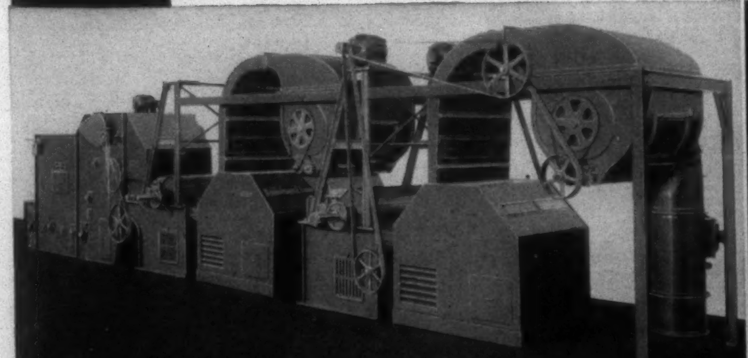
To compare conventional cleaning machinery with Super-Jet cleaning, some strict low middling cotton containing 4.5% trash as shown by a Shirley Analyzer was put through a vertical opener and a Buckley opener, after which, 3.3% trash remained in the cotton.

This cotton was then put through a Tandem Super-Jet System, and only 1.6% remained in the stock.

The Super-Jet System therefore removed 41.7% more trash than the conventional machines, and took it out after those machines had partially cleaned this cotton.

Furthermore, the waste from the conventional machines contained 34% fiber, 6% of which was of staple length; while the Super-Jet waste contained 15% fiber, 0.9% of which was staple length.

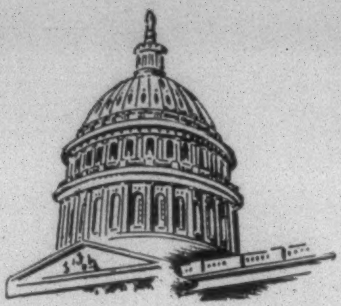
If you would like to visit a mill where results comparable to these are being obtained, we will gladly arrange it for you.



TANDEM
Super-Jet

CLEANS ENTIRELY WITH AIR

ALDRICH-LUMMUS CLEANING SYSTEM



WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

The President in talks with Cabinet members is making the end of deficit spending his primary objective. The budget, he says, must be brought within income; if not in the next fiscal year, then in the one after. He is not distinguishing between agencies, or between military and civilian spending. He is putting more emphasis on reduced spending in private talks than is evident in public statements.

Treasury Secretary Humphrey has slashed $51 million from his own spending program for the next year. This amount has been cut from the Truman request for $665 million for Treasury operation next year. The cut is also a reduction of $40.6 million below the Treasury's grant for this year. While Treasury officials do not want a tax cut now, they realize one seems certain next year.

Proposed spending for defense needs next year is being reviewed, with cuts already made in estimates for the next two years. Defense Secretary Wilson said no money will be spent which does not apply to an essential defense need. The main thing he asserts, is to set up the right program, and provide careful financing.

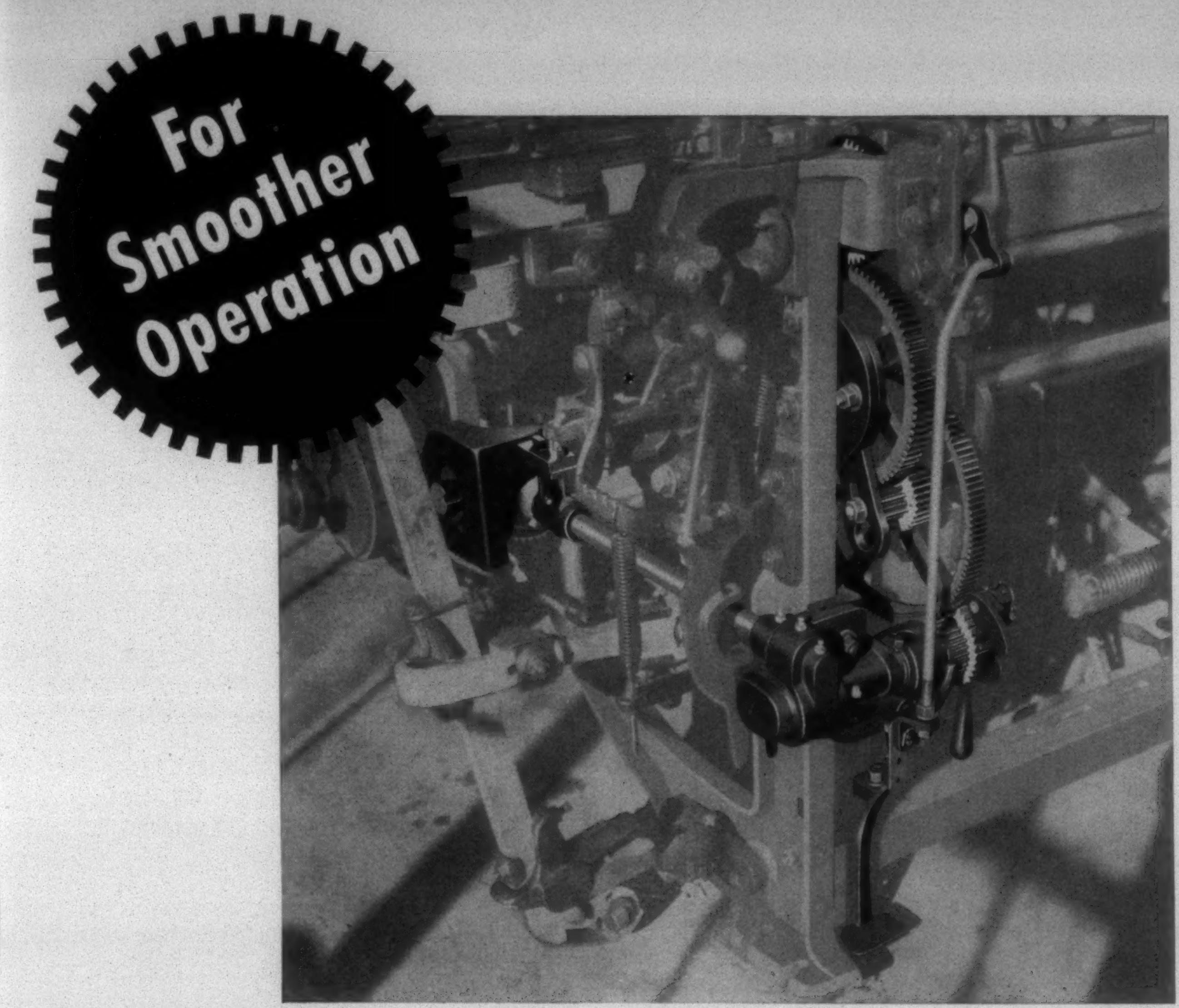
Wilson believes the question is whether the country has a reasonable, secure program of defense, with dollar cutting fitted to it. Reductions are not contemplated in planned military strength, but in waste, duplication and the construction of needless military installations, here and abroad. While plans are changed as conditions change, he is insisting on an exact, over-all framework.

Foreign aid, in both spending and personnel, will be heavily slashed in the remainder of this year, and in the next year. There's a carryover of $10 billion in spending authority for this year, much of which will be unspent and withdrawn. A cut of $7.5 billion in the Truman budget proposal for next year has been made by the House spending committee, and the allocation of new funds will be small. As yet, only about 9,000 of the 400,000 persons on federal payrolls abroad have been dismissed.

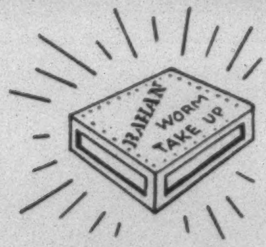
The President proposes to take the federal finger out of proper functions of the states, and reduce the grants-in-aid to them. He has asked Congress to make a study of all grants, covering 30 different programs, and now costing $2 billions a year in federal funds. He has asked for estimates of funds available to the states for proper needs without federal aid.

House leaders have warned members of both parties against launching a flood of new "authorizations" of money for pet projects. Pleas for actual appropriation of the money come later, and usually boost the budget above initial estimates. Every budget since 1940 has been pushed up, some times to new high levels, through "authorizations" previously enacted.

Hearings on revision of the Taft-Hartley Law are proceeding in an air of tightening and toughening, rather than softening, the law. Business spokesmen,



BAHAN Worm Take-Up Assembly for E, K and modified D model looms



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and witnesses outside of the big unions have made strong cases against distortions and abuses in administration since General Counsel Denham was dismissed. N.L.R.B., in its present form, may be wholly wiped out; at least it will be reconstructed.

Unions appear to have so far overplayed their hands in promoting one-sided administration of the law that they have little argument to resist changes. Sentiment in the House appears to favor a new and much tigher law. Sentiment for change is not so strong in the Senate; there is more disposition to keep the law as it is now.

Majority Leader Taft will have a strong voice in what the Senate does in labor law changes, but the House is disposed to follow its own course. Taft and his group blunted the teeth of the original Hartley bill, passed in 1947, and the Taft-Hartley compromise was the result. It has never been agreeable to a strong majority in the House. The House is expected to pass another measure like the Hartley bill, while the Senate will be offered a bill which will make few or no substantial changes in the present law.

The Senate is very evenly divided on any labor proposal, and Taft may have to make a lot of concessions to win a majority for any bill. He will lose as many Republican votes as he gains on any proposal to loosen up the present law. The trouble will be to get the House to accept any bill which loosens any provision.

The tight alliance between government and unions under Truman may turn out to have been one of their most disastrous episodes. Small communities and farming areas are being felt in the House in a powerful demand that unions be made subordinate to law and government. Farmer sentiment will undoubtedly bring a tighter ban by House action on the closed shop, and may include the union shop. A new "States' Rights" amendment may be passed by the House giving full sweep to state laws relating to strikes, picketing and compulsory unionism.

Prohibition of compulsory unionism in any form is provided in a bill (H.R. 3999) introduced by Wint Smith (R., Kan.) of the House Labor Committee. He says that compulsion of workers to join a union is the objective of union leaders in seeking to change the present law.

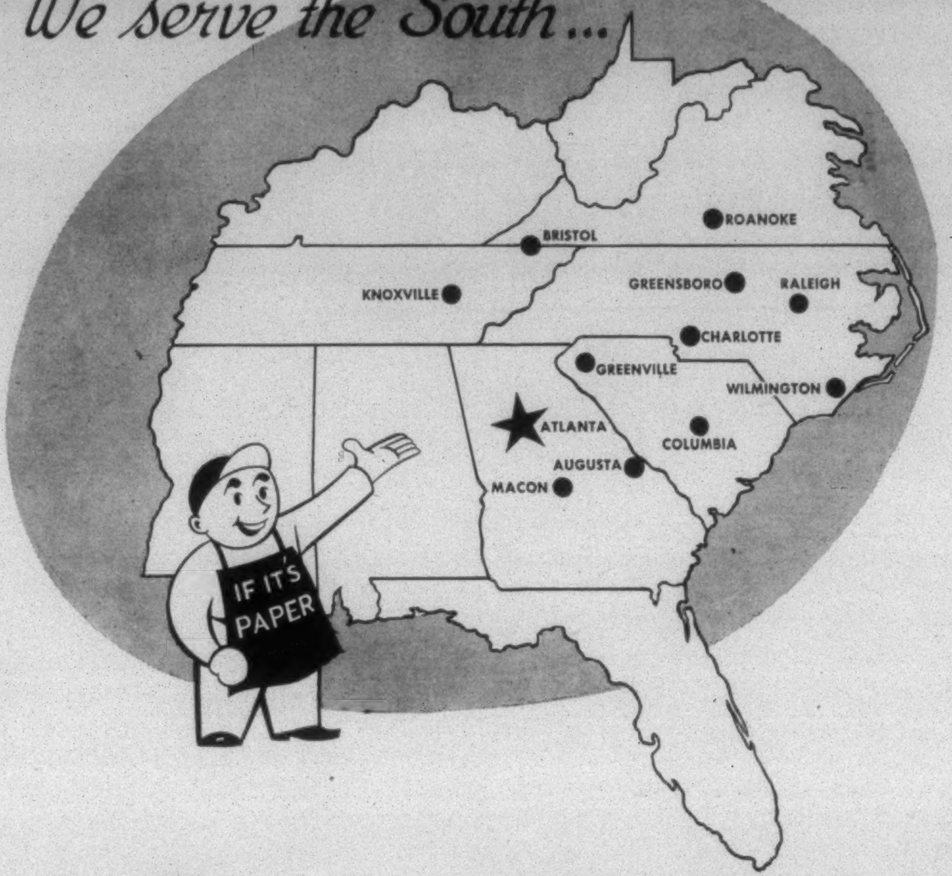
Union leaders are frankly concerned with what they see ahead in possible labor legislation in this Congress. They demanded changes in a belief that the law would be easily "lossened" or repealed. But the Administration is not offering favors. Nearly 500 union men "on loan" to government agencies have been thrown out of their jobs in two months, and union leaders are no longer being aksed to come in and "help fix wages and enforce controls."

There's a season of wage adjustment ahead, and each big union knows it has need for at least some alliance with the White House. The leaders have been promising at least some sharp changes in the present law. If they do not get them, their own positions and prestige are weakened. For this reason there is much more than meets the eye in the heavy attacks on the present law by union spokesmen before the House and Senate labor committees.

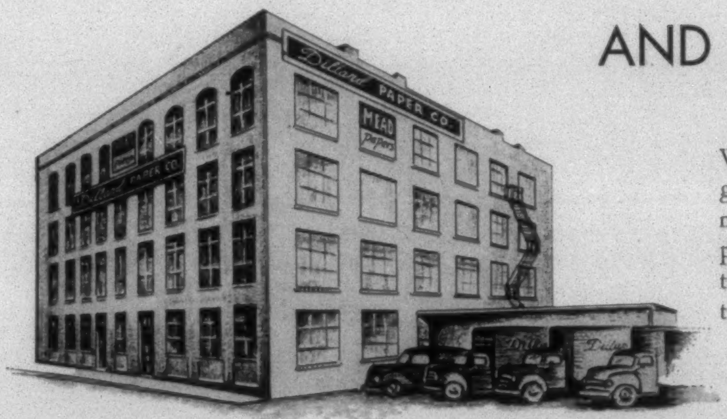
Some labor bosses are still trying to exact a price for joining up to "support and co-operate" with the Administration. They want the Taft-Hartley Law drastically watered down, and the teeth pulled from the Hobbs anti-racketeering act. They want limitations removed on the union shop, and the closed shop legalized. They want a voice in shaping labor policies without being committed to support general policies of Eisenhower.

Administration leaders are fully aware of the urgency facing the big unions to "bargain with the Administration." They are cognizant that both the

We serve the South...



AND NOW ATLANTA!



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1926 Dillard Paper Company Serves the South 1953

A.F.L. and the C.I.O., went far out on a limb in their opposition in the campaign. The fact their funds financed Truman's whistle-stopping is not forgotten, even by Democrats who say this defeated them. They are cramped further by their active alliance with A.D.A. And the Administration knows that both of them hope for a Democratic-controlled Congress next time.

Some of the most important wage contracts of the unions are coming up for negotiation and renewal, and they wish to avoid wage disputes. They know sentiment in Congress is not favorable, and they cannot lean on the government. Wage and price controls are gone, and prices did not go up as ceilings were removed. Wage decreases are due under escalator clauses as costs of living level off.

The unionists are almost a unit in proclaiming they will not take wage cuts, even under escalator clauses. But within their own ranks they admit that in industries where demand is declining, they will have to take some wage cuts.

The cold fact is that wages moved up much faster than did consumer prices and the cost of living index. Many of the links in the wage chain are out of line, including increases which W.S.B. allowed in steel, autos, rubber and meat packing, and the huge increases granted in pay for coal mining. Market problems are forcing a change, and the unions are not in a position to unload new demands, or even retain out-of-line "inequalities" on higher prices.

In the coming weeks both of the big unions can be expected to increase their efforts to "come to an understanding" with Administration leaders. They are learning now how dependent they have been for 20 years on political power for their gains and "victories." They know they have to deal with the party in power, whether it owes them anything or not. They realize they cannot defeat a more drastic labor law if the President indicates he will sign it.

For the racket-riddled and gangster-infested Longshoremen's Union on New York's waterfront, April 30 is the deadline. A.F.L. has told the union to either clean house by that day or face expulsion. This is a new experience for an A.F.L. union, and indicates that new President Meany has turned a page from the Green practice of condoning anything in the way of rackets as long as it was done by dues-paying unions.

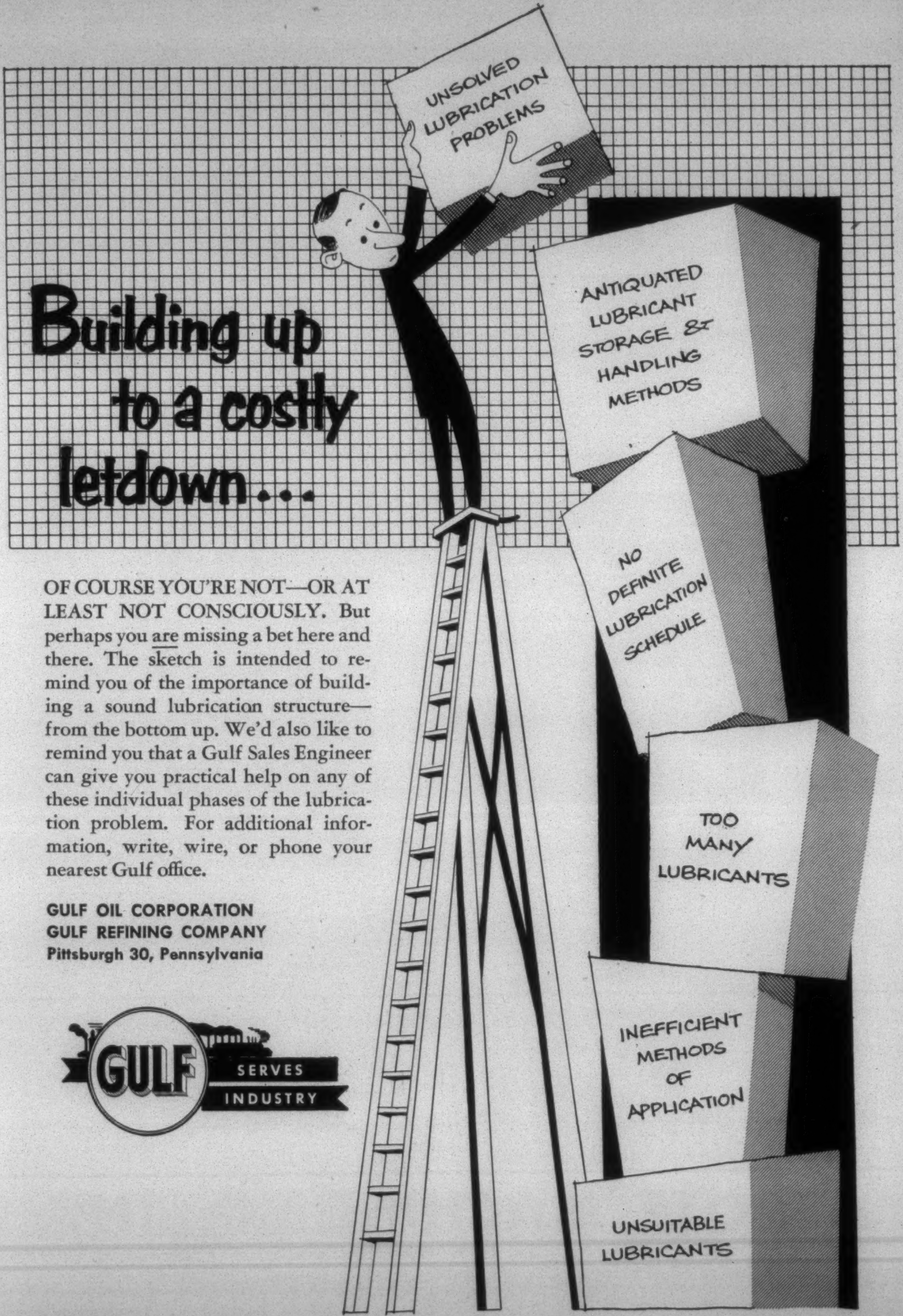
The President and Senator Taft are finding full agreement along the line of foreign affairs, military policy and economic problems. They appear to be a smooth-working team, spending week-ends together at golf. Taft is in apparent command at the Capitol, although other party leaders are divided on various issues. Taft is conferring with Eisenhower at every step in the legislative program.

Mr. Eisenhower is leaning on Taft, and studiously avoiding any tendency of his own to meddle in the legislative processes of Congress. But his top advisers are beginning to question this policy. Some of them feel decisive leadership is not evident, and the President should assume some over-all command, and define his own program of needed action.

Ammunition is pouring into Korea in a torrent since General Van Fleet made his startling charges of shortage. But MacArthur told of shortage, too. Both the Administration and the Armed Services committees hesitate to go into a full exploration of the scandal.

The ammunition scandal may rock the whole nation when all of its details and foreign influences are unfolded. A total of $104 billion has been given for military needs since the Korean war started, but only $40 billion of this has been translated into needed materials. Evidence shows that acute shortages in most needed items have handicapped troops in Korea both on offense and defense.

Building up to a costly letdown . . .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OF COURSE YOU'RE NOT—OR AT LEAST NOT CONSCIOUSLY. But perhaps you are missing a bet here and there. The sketch is intended to remind you of the importance of building a sound lubrication structure—from the bottom up. We'd also like to remind you that a Gulf Sales Engineer can give you practical help on any of these individual phases of the lubrication problem. For additional information, write, wire, or phone your nearest Gulf office.

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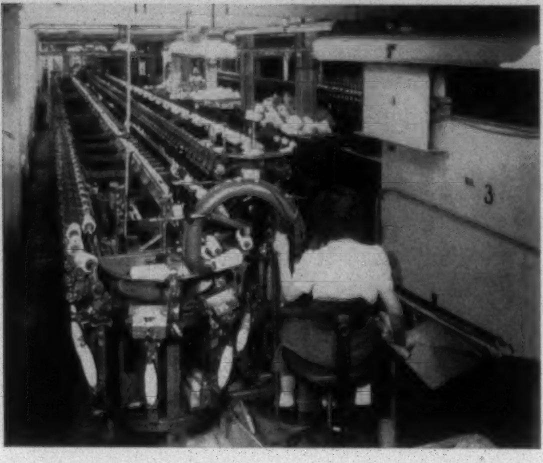

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Production up to 1000 bobbins per hour per operator.

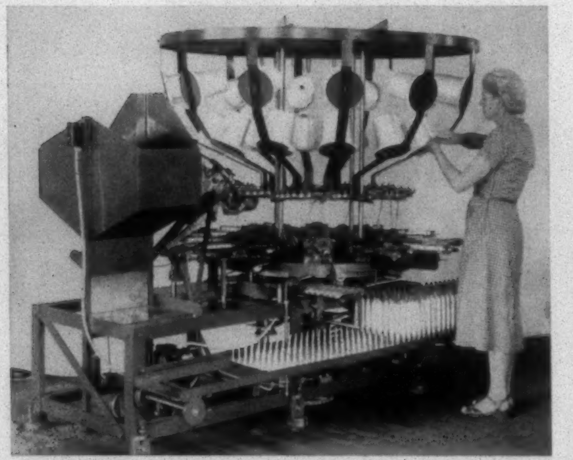
Abbott Traveling Spindle Automatic Quillers

For winding cotton, spun rayon, worsted, etc., equipped to doff automatically into baskets, or stack automatically into boxes.

For rewinding woolen yarn from mule and ring frames.

For winding filament rayon and nylon, etc., with automatic pinboard attachment or wide belt inspection conveyor.

Production up to 2000 bobbins per hour per operator.



Abbott Fully Automatic Radial Quiller

This new quiller has been developed to bring complete automatic quilling to highly diversified mills and the small mills.

For winding cotton, spun rayon, filament rayon, worsted, wool, etc.

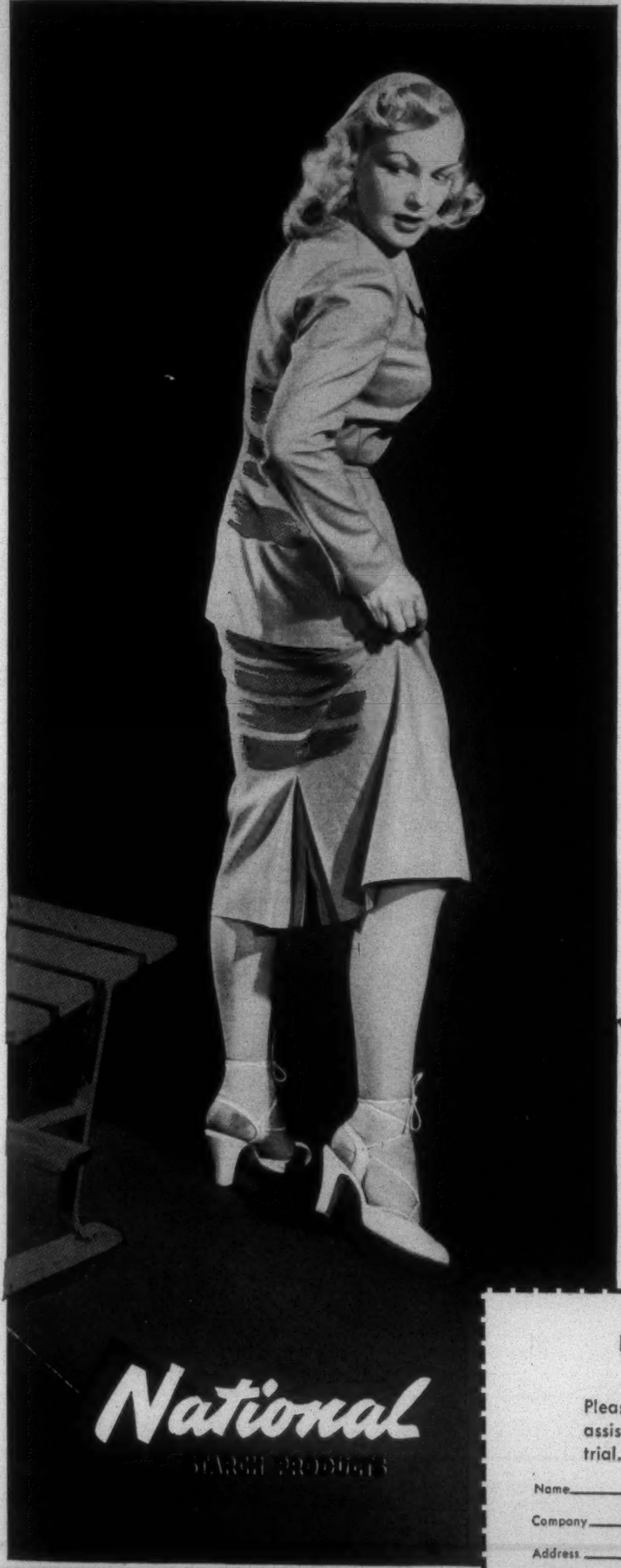
Can be arranged to deliver bobbins to Pinboard Attachment, or into baskets, or onto wide belt conveyor.

Production up to 2000 bobbins per hour per operator.

ABBOTT MACHINE CO., INC.

WILTON, NEW HAMPSHIRE

SOUTHERN SALES AND SERVICE: GREENVILLE, SOUTH CAROLINA



National

STARCH PRODUCTS

Avoid Set-marks

NU-FILM, a new, non-congealing warp size, reduces formation of "set marks" . . . does away with "hard size" — drastically reduces rayon seconds.

NU-FILM's better running properties increase weaving efficiency. NU-FILM reduces loom shedding. Minimizes formation of slubs.

NU-FILM washes out of fabrics easily with soap and water. Permits low, comfortable humidity in your weave room.

Use it on spun rayon blends, cottons, and filament viscose yarns. For full information, clip and mail the coupon. **Offices:** 270 Madison Avenue, New York 16; Boston; Providence; Philadelphia; Atlanta; New Orleans; and other principal cities.

TB

I'D LIKE TO AVOID SET MARKS

NU-FILM

Please send ☐ Technical data ☐ Sample ☐ Technical assistance. Have a representative arrange for a NU-FILM trial.

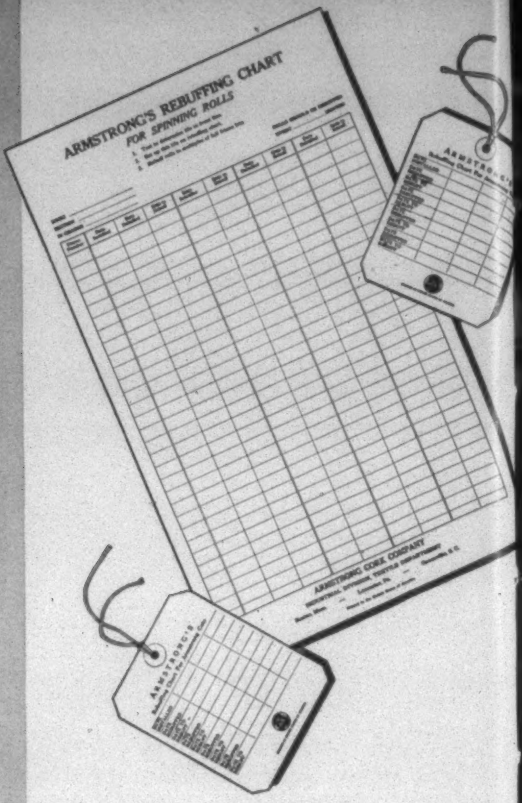
Name________________ Title__________

Company__________________________

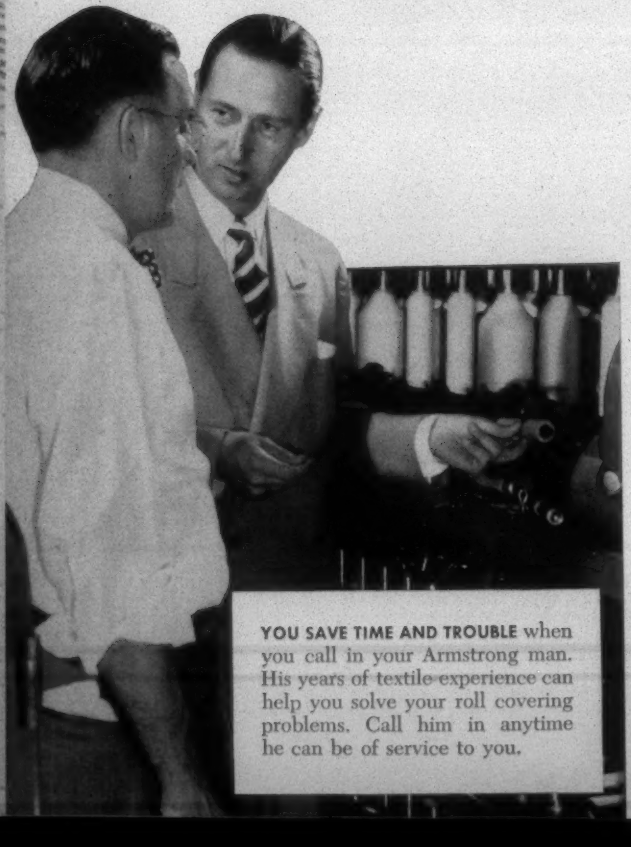
Address___________________________

City__________ Zone_____ State________

To set up a practical COT BUFFING SCHEDULE


ARMSTRONG'S REBUFFING CHART
FOR SPINNING ROLLS
ARMSTRONG CORK COMPANY

Call your Armstrong man . . . he can help


YOU SAVE TIME AND TROUBLE when you call in your Armstrong man. His years of textile experience can help you solve your roll covering problems. Call him in anytime he can be of service to you.

A good, workable re-buffing plan for your roll covers can benefit you in several ways.

First, it helps you spin more uniform yarn because your cots always are in good running condition. Second, it provides maximum life from your roll covers because they are buffed no more often than necessary. Third, a systematic buffing schedule helps insure more efficient roll shop operation.

A good way to get started on a streamlined re-buffing program is to call in your Armstrong man. He can help you organize things to provide a uniform flow of work in and out of your roll shop. And when the program is set up, he'll provide you with master buffing charts and frame tags that make it easy to stay on the schedule you adopt.

This is just one of many ways your Armstrong man can help you get the most out of your cots. Call him in whenever you have a roll covering problem. You'll find his specialized training and experience mean

ARMSTRONG'S

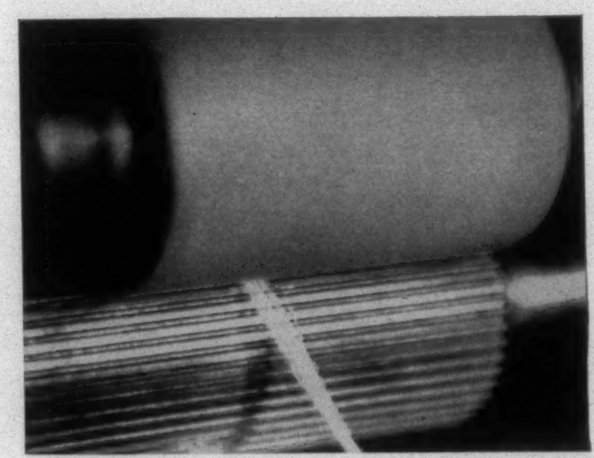
you get better running work, maximum cot lif

sound answers to almost any roll covering question that might come up in your particular operation.

Your Armstrong representative has another big advantage. From his complete line of Armstrong's Roll Covers, he can supply the right cot for every type of frame and fiber.

He has cork if cork is needed. And he has a wide variety of long-wearing, lap-resistant Accotex® Cots, available in straight rubber and in cork-and-rubber combinations. Each Accotex formulation is made in varying degrees of firmness to give you the exact cushion you need.

Whenever you have a problem concerning roll covers, be sure to call in your Armstrong man. If yours is a rush call, he usually can be at your mill in 24 hours or less. To get Accotex Cots for testing, just ask him or write to Armstrong Cork Company, Textile Products Dept., 8204 Arch St., Lancaster, Pa. All Accotex products are available for export.



Lap-resistant Accotex Cots last up to 6 years. Only a minimum of re-buffing is needed to keep Accotex Covers in condition to spin quality yarn for as long as six years. In addition, they practically eliminate lapping. Every Accotex Cot contains certain electrolytes that remove the basic cause of lapping—the attraction between electrical charges on both cot and fiber. By neutralizing the charges in the cot, these electrolytes let broken ends run free long enough to drop down onto the scavenger roll and thus prevent lap ups.

ACCOTEX COTS

textile bulletin

PUBLISHED MONTHLY BY

CLARK PUBLISHING COMPANY

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Textile Bulletin is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving branches of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are their own and not necessarily those of the editors and publishers. A companion monthly journal, The Knitter, is devoted to the interests of the knitgoods industry.

Vol. 79 April 1953 No. 4

Where Were You When . . .

We find nothing logical or appropriate in an editorial printed by one of our contemporaries whose ivory tower is up the road a piece—'way up the road, as a matter of fact—in which the recent American Cotton Manufacturers Association was pretty severely criticized. We find no logic, because no facts are presented to back up the criticism, and we find it inappropriate because if the editor of that publication *was* present at Palm Beach, he didn't make his attendance official by signing the convention registration books.

Our contemporary seems to think that the meeting was "purely a social gathering," and that it made little pretense "at solving some of the problems which face us today." As to the "social" aspect, it might be that our contemporary or his representative spent more time at some of the purely social affairs than he did at the official convention functions. In respect to the solution of problems by the A.C.M.I., we do not consider it to be a national law-making body and thus think that the best way for it to take a stand on any issue is to get on record by means of resolutions. And, so, we wonder if our contemporary has bothered to read the resolutions passed at Palm Beach, for we feel that all of the resolutions were thoroughly prepared, well-written and firmly stated; they were drawn up by an experienced and capable resolutions committee, and were distributed in mimeographed form prior to the meeting at which they were voted upon.

Aside from Bill Sibley's speech, our contemporary feels that "the balance of the program lacked . . . fire and enthusiasm." Here again, had the editor bothered even to read the other speeches made at the convention he would have found that many of them were excellent. To say that the acceptance speech made by H. K. Hallett, or the speeches made by Bob Jackson, Ed Lipscomb, Sinclair Weeks, or Wm. McC. Martin lacked fire, enthusiasm, or interest is not to know what was said.

All in all, we felt that this year's meeting of the A.C.M.I. accomplished much for the industry in the way of problems solved and policies formulated, and that those who planned it are due commendation rather than unfounded criticism.

Union Representation Elections

Everything points to a very strenuous drive by the C.I.O. to increase its membership in Southern states. John Riffe of Decatur, Ga., formerly Southern director of the C.I.O., is obligated to Emil Rieve, head of the C.I.O. Textile Workers Union of America, and Emil needs help.

During the past year the National Labor Relations Board has conducted to a point of final settlement 42 representation elections in Southern textile plants and in which the T.W.U.A. (C.I.O.) and the competitive United Textile Workers of America (A.F.L.) were interested parties. Of these elections, employees have voted for "no union" 21 times, for the U.T.W.A. 19 times and for the T.W.U.A. only twice. Included in the above figures are the following representation elections reported since our last issue went to press:

At the twine plant of International Harvester Co., New Orleans, La., workers voted 255 for the *U.T.W.A.*, 49 for "no union." (The T.W.U.A. originally figured in this election, but failed to ask to be put on the ballot).

At Aleo Mfg. Co., Rockingham, N. C., workers voted 465 for the *U.T.W.A.*, 190 for the T.W.U.A., and ten for "no union."

At Barnhardt Mfg. Co., Charlotte, N. C., workers voted 231 for *"no union,"* 51 for the T.W.U.A. (In this case the A.F.L. union was not interested).

At Courtaulds (Alabama) Ltd., Lemoyne, Ala., workers voted 143 for *"no union,"* as against a total of 68 votes for an assortment of unions, among the miscellany being 47 votes for the T.W.U.A., C.I.O.

At Wennonah Cotton Mills Co., Lexington, N. C., workers voted 225 for *"no union,"* 135 for the U.T.W.A., with the C.I.O. union not participating.

The Rayon Information Service

The new industry-wide information and service program for mills, cutters, retailers and consumers is likely to get complete support from the textile industry, if initial reaction to announcement of the program is indicative.

Spokesmen for leading trade groups and individual firms

NOW! A broader range of *Non-Congealing* warp sizes for spun rayon and blends

STA-GEL N.C. definitely improves loom efficiency!

New and Improved STA-GEL N.C. is made in a range of fluidities to meet specific concentration needs for the particular blend of yarn being sized.

STA-GEL gives you these important advantages:

- Smoother, Tougher Size
- Reduced Shedding
- Improved Loom Efficiency
- Easier Desizing
- More Strength and Binding Power
- Reduced Cost

Join the many important mills now using STA-GEL. Make your difficult constructions easier to weave with Staley's new, better sizing!

THERE IS A SUPERIOR QUALITY STALEY STARCH FOR EVERY TEXTILE NEED
Another Staley Development for the Textile Industry!
STA-GEL
SIZE
for SPUN RAYON
and Mixtures of Staple Rayon with other Fibers
Makes Difficult Constructions Easy to Weave!

Investigate STA-GEL! Write today for all the facts about this superior sizing.

STA-GEL® N.C.

Staley's new high efficiency spun rayon size

A. E. Staley Mfg. Co., Decatur, Illinois

PRODUCTS FROM CORN
Staley's

in the textile industry have expressed enthusiasm for the program, which they feel has been needed for a long time. The first step in the program, as reported elsewhere in this issue, was the formation of the Rayon Information Center at 670 Fifth Avenue, New York City. The center will provide service and information to consumers, develop merchandising opportunities for retailers through special projects, sales aids, etc., and work with mills, converters, dyers and finishers, designers and cutters and others to make the most of rayon's inherent qualities as well as to encourage new styles, constructions and fabric development.

We have been of the opinion for some time that such a program would be helpful to the entire textile industry. It should serve to prevent consumer complaints, such as the one we expressed after buying a pair of rayon pajamas and finding that the pants of same would not stay up. The cutter made a right nice pair of pajamas, but he insisted on inserting in the waist a rayon cord which would not hold a knot. Result: knot slipped, pants fell off, wearer cussed rayon.

The new program has an initial appropriation of $750,000, which may be increased substantially as the need develops. We commend the Du Pont textile fibers department, American Bemberg, North American Rayon, American Enka, American Viscose and Industrial Rayon for having the wisdom to initiate such a venture.

'T-Foot' Nelson

The nickname cited above doesn't do justice to the character of and service rendered by the late Thomas Nelson, whose death this month ended a lengthy career devoted to improvement of the textile industry.

There are many accounts of just how Dr. Nelson got his nickname; the important fact to remember is that his students at the North Carolina State College School of Textiles made such a fond reference to him.

In textile history his name will be recorded as one of the first men who visualized the need for formal textile education and was willing to work diligently to fulfill that need.

His monument is personified by a large group of graduates who now are among the industry's foremost executives.

All hands know now that when the chips are down Mr. and Mrs. Average American can and will out-vote the whole caboodle of pampered pressure groups.—*The Greenville* (S. C.) *News*.

TEXTILE INDUSTRY SCHEDULE

— 1953 —

April 22-23—Spring meeting, **THE FIBER SOCIETY**, New Orleans, La.

April 23-24—Textile Electrical Conference, **TEXTILE SUB-SECTION, AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS**, A. French Textile School, Georgia Institute of Technology, Atlanta.

April 23-25—Annual convention, **COTTON MANUFACTURERS ASSOCIATION OF GEORGIA**, Boca Raton (Fla.) Hotel and Club.

April 25—NORTHERN NORTH CAROLINA-VIRGINIA DIVISION, S.T.A., Fieldale (Va.) Y.M.C.A. Building.

May 7—Annual meeting, **NATIONAL ASSOCIATION OF WOOL MANUFACTURERS**, New York City.

May 7-9—Annual convention, **PHI PSI TEXTILE FRATERNITY**, Penn-Sheraton Hotel, Philadelphia, Pa.

May 9—Slashing and weaving meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES**, Alabama Polytechnic Institute, Auburn.

May 11-16—NATIONAL COTTON WEEK.

May 13-15—NORTH CAROLINA STATEWIDE INDUSTRIAL SAFETY CONFERENCE, Robert E. Lee Hotel, Winston-Salem.

May 14-16—Annual outing, **CAROLINA YARN ASSOCIATION**, The Carolina, Pinehurst, N. C.

May 18-20—A.M.A. CONFERENCE ON INSURANCE, Hotel Statler, New York City.

May 18-22—NATIONAL MATERIALS HANDLING EXPOSITION, Convention Hall, Philadelphia, Pa.

May 22—Textile Engineering Division, **AMERICAN SOCIETY OF MECHANICAL ENGINEERS**, Sheraton Plaza Hotel, Boston, Mass.

May 23—SOUTH CENTRAL SECTION, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.

May 25-30—Annual conference, **TEXTILE INSTITUTE**, Llandudno, North Wales, England.

May 29—TEXTILE DIVISION, AMERICAN SOCIETY FOR QUALITY CONTROL, Convention Hall, Philadelphia, Pa. (as part of A.S.Q.C. meeting).

May 28-30—Annual convention, **SOUTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION**, The Cloister, Sea Island, Ga.

June 12-13—PIEDMONT SECTION, A.A.T.C.C., Mayview Manor, Blowing Rock, N. C.

June 17-19—AMERICAN MANAGEMENT ASSOCIATION CONFERENCE ON GENERAL MANAGEMENT, Hotel Statler, New York City.

June 18-20—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Mayview Manor, Blowing Rock, N. C.

June 19-20—Annual outing, **SOUTHEASTERN SECTION, A.A.T.C.C.**, Radium Springs, Ga.

June 29-July 3—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Chalfonte-Haddon Hall, Atlantic City, N. J.

Aug. 3-7—INTERNATIONAL TEXTILE INDUSTRIES EXPOSITION, Hotel Astor, New York City.

Aug. 21-22—Outing, **SOUTH CENTRAL SECTION, A.A.T.C.C.**, Chattanooga (Tenn.) Golf and Country Club.

Sept. 10-11—Fall meeting, **THE FIBER SOCIETY**, Lowell, Mass.

Sept. 12—PIEDMONT SECTION, A.A.T.C.C., Hotel Charlotte, Charlotte, N. C.

Sept. 17-19—National convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS**, Conrad Hilton Hotel, Chicago, Ill.

Oct. 1-2—Annual convention, **QUARTERMASTER ASSOCIATION**, Lord Baltimore Hotel, Baltimore, Md.

Oct. 14-24—INTERNATIONAL EXHIBITION OF TEXTILE MACHINERY AND ACCESSORIES, Belle Vue, Manchester, England.

Oct. 15-16—Annual meeting, **NORTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION**, The Carolina, Pinehurst, N. C.

Oct. 29-30—Annual convention, **CARDED YARN ASSOCIATION**, Grove Park Inn, Asheville, N. C.

Dec. 5—SOUTH CENTRAL SECTION, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.

— 1954 —

Feb. 17-19—COTTON RESEARCH CLINIC, sponsored by National Cotton Council of America, The Carolina, Pinehurst, N. C.

April 22-24—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Jung Hotel, New Orleans, La.

April 26-May 1—AMERICAN TEXTILE MACHINERY EXHIBITION, Atlantic City (N. J.) Auditorium.

June 10-12—Annual convention, S.T.A., Ocean Forest Hotel, Myrtle Beach, S. C.

Sept. 15-19—National convention, A.A.T.C.C., Atlanta Biltmore Hotel, Atlanta, Ga.

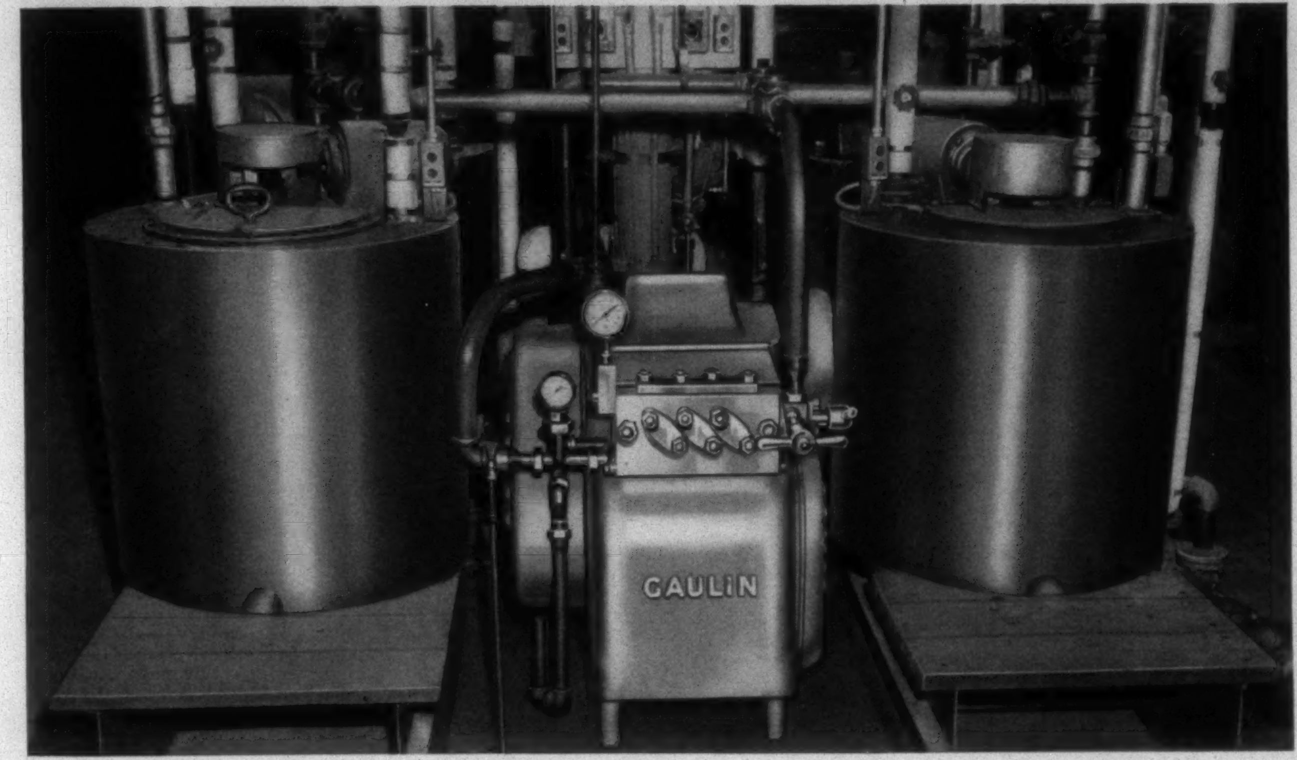
Oct. 4-9—SOUTHERN TEXTILE EXPOSITION, Textile Hall, Greenville, S. C.

— 1955 —

Sept. 21-23—National convention, A.A.T.C.C., Chalfonte-Haddon Hall, Atlantic City, N. J.

HOW BACHMAN-UXBRIDGE SAVES ON GAULIN-HOMOGENIZED SIZE

...For Single-Ply Worsted, Nylon Worsted, Rayon Worsted



Cooks Size Here

Instead of bringing the starch mixture to a boil and holding for 30 minutes to an hour and a half, it is now only necessary to heat the starch to the swelling point—which is reached in just 10 to 15 minutes. But most important, with a Gaulin Homogenizer a lower-priced pearl starch does the job.

Homogenizes Here

By converting starch mechanically instead of thermally, a Gaulin Homogenizer produces a finer, smoother size. Viscosity is accurately set and controlled. Result—Bachman-Uxbridge claims less shedding at the loom and slasher, higher weaving efficiencies, and a more uniform finished product than ever before.

Stores It Here

Gaulin makes sizes so stable they can be easily stored for several days. Their resistance to separation saves waste when creeling the slasher, and on weekend or other shutdowns. Just one more reason why most Gaulin installations pay for themselves in less than a year. Write for the complete story on Gaulin *guaranteed* performance, today.

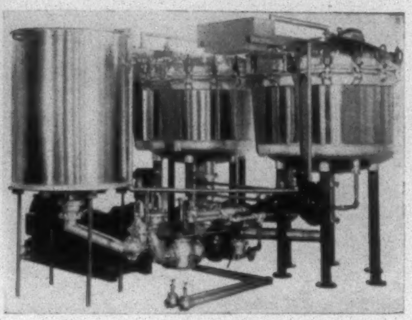
Spun Rayon-Cotton

Gaulin Homogenizers are also used in preparing better sizes for Spun Rayon and Cottons. Mills all over the country now find them a more efficient, economical way to higher quality production.

Gaulin
TRADE MARK

Manton-Gaulin
MANUFACTURING COMPANY, INC.
66 GARDEN STREET, EVERETT 49, MASS.
World's largest manufacturer of Homogenizers, Triplex Stainless-Steel High Pressure Pumps, and Colloid Mills

Service...



In building our reputation for service, Gaston County has drawn on the know-how gained through thirty years spent in solving the problems of the textile industry.

Because of the studied precision that guides each installation of Gaston County equipment, accuracy and efficiency are assured—the need for service is held to a minimum. Your call for assistance on any equipment problems, however, will be answered at once—*whenever* it comes.

In those instances of dye house machinery failure where service is needed, our central location in the heart of the textile industry enables us to furnish that need . . . promptly. This service . . . quick . . . efficient . . . insures you against operational loss of dollars—another significant advantage of Gaston County Dyeing Machines.

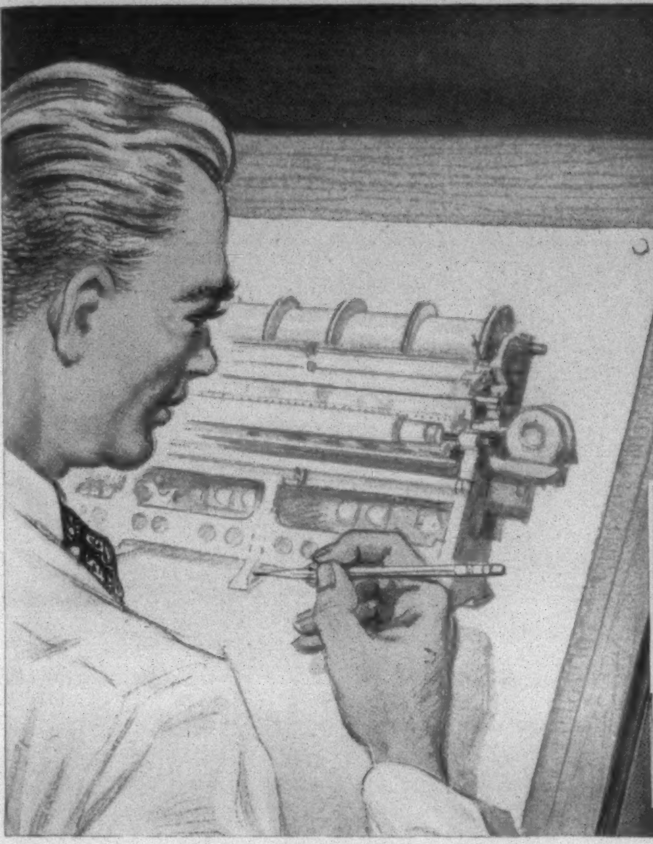
Call or wire us in that emergency that calls for immediate action.

GASTON COUNTY DYEING MACHINE CO.

STANLEY, NORTH CAROLINA, U. S. A

Installations of this Modern Equipment Range from the World's Smallest to the World's Largest!

Another Dividend **from our policy of PROGRESS THROUGH RESEARCH**



Once again, our engineers and technicians working together in Whitin's Research Division, the world's largest and best equipped for textile machinery development, have combined their varied skills to produce a machine of outstanding merit — a great machinery dividend, this time for the tricot knitting industry.

Research Division, Whitinsville ,Mass.

It's the new WHITIN Model "D" Tricot Knitter

Two of the desirable objectives of the tricot knitting industry are (1) the production of fabrics of improved quality and (2) producing such fabrics at a higher rate of speed. Extensive tests indicate that the new Model "D" achieves these purposes by providing newly designed mechanisms for the more accurate control of fabric quality — and by the use of new applications of materials for increasing its productive capacity.

Other important elements have been added or redesigned. The new motor drive, for example, is simple and ingenious, allowing a full range of precisely controlled inching and jogging through any degree of motion in a cycle. Interesting, too, is a new lubrication system which is optional for multiple unit installations.

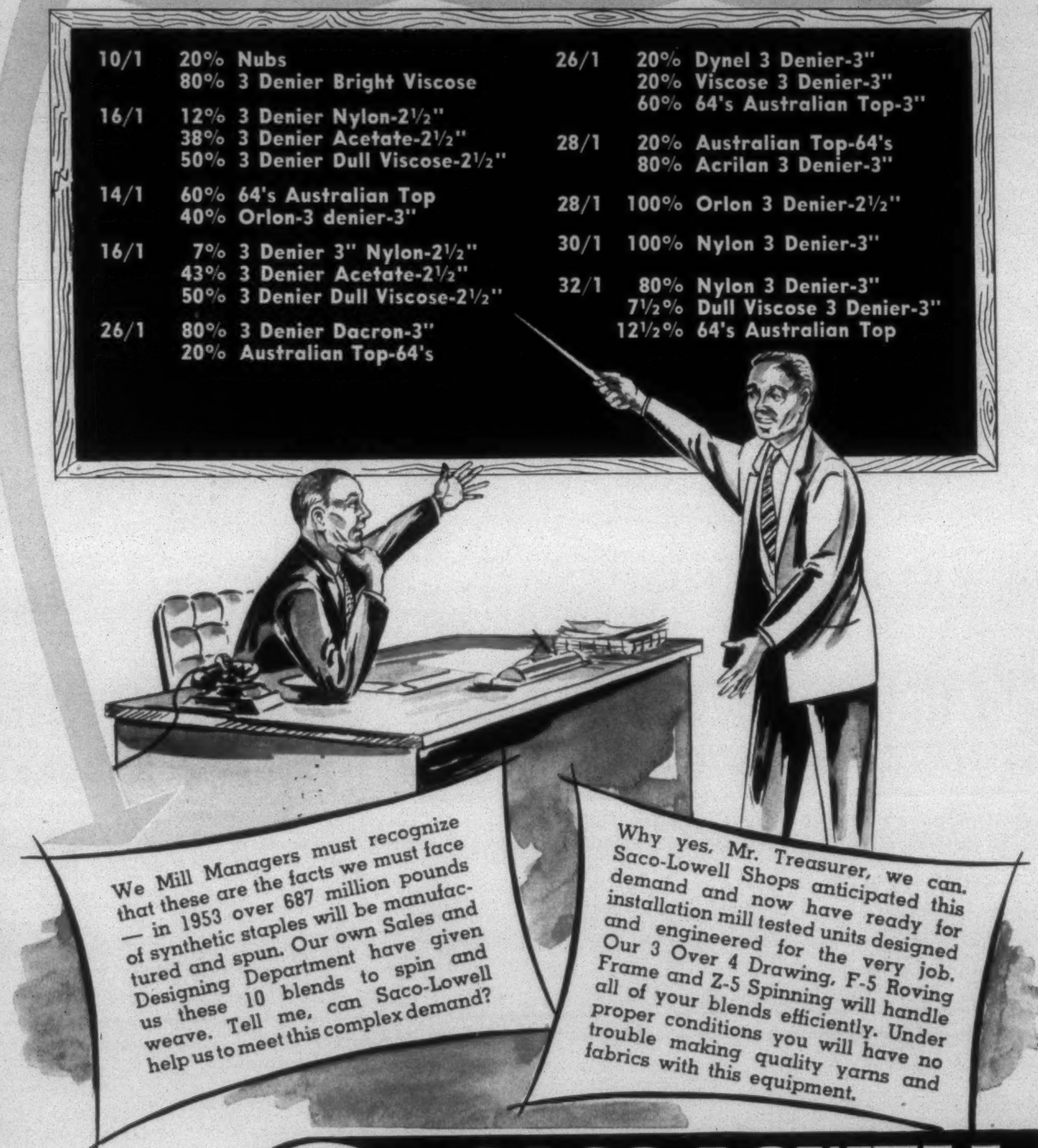
For quality of product . . . for high production . . . for top performance, here's the pace setter — the Whitin Model "D" Tricot Knitter.

See it in operation at the
KNITTING ARTS EXHIBITION
Atlantic City Auditorium • April 27 - May 1
BOOTHS
414 • 414A • 415 • 415A • 440 • 441 • 452 • 453

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS
CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, N. C. • DEXTER, ME.

"CONVERSATIONS LIKE THIS ARE COMMONPLACE TODAY!"



10/1 20% Nubs
80% 3 Denier Bright Viscose

16/1 12% 3 Denier Nylon-2½"
38% 3 Denier Acetate-2½"
50% 3 Denier Dull Viscose-2½"

14/1 60% 64's Australian Top
40% Orlon-3 denier-3"

16/1 7% 3 Denier 3" Nylon-2½"
43% 3 Denier Acetate-2½"
50% 3 Denier Dull Viscose-2½"

26/1 80% 3 Denier Dacron-3"
20% Australian Top-64's

26/1 20% Dynel 3 Denier-3"
20% Viscose 3 Denier-3"
60% 64's Australian Top-3"

28/1 20% Australian Top-64's
80% Acrilan 3 Denier-3"

28/1 100% Orlon 3 Denier-2½"

30/1 100% Nylon 3 Denier-3"

32/1 80% Nylon 3 Denier-3"
7½% Dull Viscose 3 Denier-3"
12½% 64's Australian Top

We Mill Managers must recognize that these are the facts we must face — in 1953 over 687 million pounds of synthetic staples will be manufactured and spun. Our own Sales and Designing Department have given us these 10 blends to spin and weave. Tell me, can Saco-Lowell help us to meet this complex demand?

Why yes, Mr. Treasurer, we can. Saco-Lowell Shops anticipated this demand and now have ready for installation mill tested units designed and engineered for the very job. Our 3 Over 4 Drawing, F-5 Roving Frame and Z-5 Spinning will handle all of your blends efficiently. Under proper conditions you will have no trouble making quality yarns and fabrics with this equipment.

SACO-LOWELL
60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD *and* SACO, MAINE; *and* SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

textile bulletin

VOL. 79 APRIL 1953 NO. 4

The 1953 A.C.M.I. Convention

TENOR for the fourth annual meeting of the American Cotton Manufacturers Institute, held March 26-28 at Palm Beach, Fla., was set by W. A. L. Sibley of Monarch Mills, Union, S. C., when in the retiring president's address at the opening business session he warned against a "narrow interpretation of the 'trade not aid' slogan." With the theme of the meet thus sounded, the nearly 500 manufacturers present went ahead to express their agreement with Mr. Sibley's views by adopting at the convention's final session a resolution calling for the designation of a bi-partisan congressional committee "to study the basic causes of international trade confusion and the avenues of approach to their correction." In the interim, the institute asked for the provisional renewal of the Trade Agreements Act for a period of not more than one year.

At the same session, the institute, meeting in Palm Beach's Biltmore Hotel, elected Howell Knight Hallett, of Charlotte, N. C., to succeed Mr. Sibley as president of the American Cotton Manufacturers Institute Inc. Mr. Hallett is vice-president and general manager in charge of the cotton mills division of Kendall Mills, Charlotte, N. C., and also is currently the president of the North Carolina Textile Manufacturers Association.

To serve with Mr. Hallett, the A.C.M.I. chose J. Craig Smith, president of Avondale Mills, Sylacauga, Ala., as first vice-president; and Arthur K. Winget, chairman of the board of American and Efird Mills Inc., Albemarle, N. C., was named as second vice-president. Eight directors were chosen for three-year terms. They are: William F. Staples, president of Merrimack Mfg. Co., Lowell, Mass.; William C. Cannon, Cannon Mills, Kannapolis, N. C.; Julian Robertson, president of Erlanger Mills, Lexington, N. C.; Clifford B. Hayes, vice-president of Pacific Mills, Lyman, S. C.; Raymond G. Emery, vice-president of Dunean Mills Division of J. P. Stevens & Co. Inc., Greenville, S. C.; Earle R. Stall, president of Florence Mills, Greenville, S. C.; J. M. Cheatham, president of Dundee Mills, Griffin, Ga.; and D. H. Morris III, president of Geneva (Ala.) Cotton Mills.

At a meeting of the Textile Committee on Public Relations held at Palm Beach, Roger Milliken, president of Deering, Milliken & Co., was elected chairman of the committee, succeeding Charles A. Cannon, head of Cannon Mills Co., who had served for the last two years. A resolution commending Mr. Cannon for this leadership of the committee during a period of business uncertainties was unanimously adopted by the committee. A. B. Edge of Callaway Mills, LaGrange, Ga., was named treasurer of the committee to succeed Mr. Milliken, who had held that post for the past five years. A. W. Gunn, also of Callaway, was named assistant treasurer, and Harold V. Kennedy of Deering, Milliken & Co., was chosen secretary. Four new members were added to the committee: John Stevens of J. P. Stevens & Co.; Bracket Parsons of Pepperell Mfg. Co.; J. M. Cheatham of Dundee Mills; and Albert S. Allen of Pequot Mills.

In his speech accepting the presidency of the A.C.M.I., Mr. Hallett also placed the emphasis on foreign trade, stating that although there will be differences of opinion within an industry as geographically broad as the textile industry,

Officers of the American Cotton Manufacturers Institute pose at the final session of the convention. ***Left to right:*** **F. Sadler Love, secretary-treasurer, Charlotte, N. C.; W. A. L. Sibley, Monarch Mills, Union, S. C., retiring president and member of the executive committee; H. K. Hallett, Kendall Mills, Charlotte, N. C., and newly-elected president; J. Craig Smith, Avondale Mills, Sylacauga, Ala., and newly-elected first vice-president; A. K. Winget, American & Efird Mills Inc., Albmarle, N. C., newly-elected second vice-president; and Robert C. Jackson, executive vice-president, Washington.—*Palm Beach Biltmore photo.***

Palm Beach speakers, ***left to right:*** **D. W. Brooks, Charles R. Sligh Jr., William McChesney Martin Jr., Ed Lipscomb, Bishop Arthur J. Moore and Sinclair Weeks.**

"one of the areas in which we can all agree is foreign trade." The new president also took his stand on such controversial subjects as the Walsh-Healey Act and the Federal Trade Commission, and expressed the belief that the textile industry can be "an industry which can use the word 'we' in expressing our points of view regarding public affairs."

"Each time the Trade Agreements Act has come up for renewal—the Administration has asked for greater powers to destroy the tariff structure. Every time there has been a meeting of G.A.T.T., we never knew what might happen to us. The reciprocity we have talked about has never happened. No foreign tariff rates have been lowered for American cotton goods. Many have been raised . . ."

The new president expressed the realization that a foreign trade policy is too vast to be built without adequate study, and in that regard he said that "A.C.M.I. will do its part to contribute factual information and thought in the making of this program." As proof of the textile industry's ability to do an effective and constructive job in this regard, he pointed to the "work done last Fall by the American textile delegation at Buxton, as well as the material which has been prepared and documented by our staff since that time."

As other areas of challenge to the industry, Mr. Hallett pointed out the Walsh-Healey Act which, he said, "needs to be rescinded, and if not that, then adjusted to the basic law of the country," and to the Federal Trade Commission whose activities and procedures, he said, need a re-examination.

Throughout his address, Mr. Hallett stressed the need for unified action. "Textiles, along with other industries, are now on trial. The nation is looking to us to see whether we can solve our own problems, or whether we must turn them over to bigger and bigger government. I believe, in meeting this challenge, we can be an industry which can use the word 'we' in expressing our points of view regarding public affairs."

The resolution on American trade policy was just one subject on which the A.C.M.I. expressed its collective opinion. It passed also in the final session statements calling for expiration of the excess profits tax on June 30, 1953, and reduction of the tax increases of 1951; protested the lowering of standards for American upland cotton by the Department of Agriculture and requested a vote in any future determination of cotton standards; requested the Department of Agriculture to discontinue estimates on acreage and production which are issued too early to be based on factual information; endorsed the work of the Institute of Textile Technology, Charlottesville, Va., in developing a covering for individual bales of cotton; urged the National Cotton Council to appoint a committee to check into all ramifications of the problem of tar spots in cotton goods; recommended that cleaning methods be used in cotton ginning that do not injure the fiber; made effective as of March 28, 1953, the Southern Mill Rules as amended June 24, 1949, and the Cotton States Arbitration Board Rules and Regulations effective August 1, 1950, but not the Appendix.

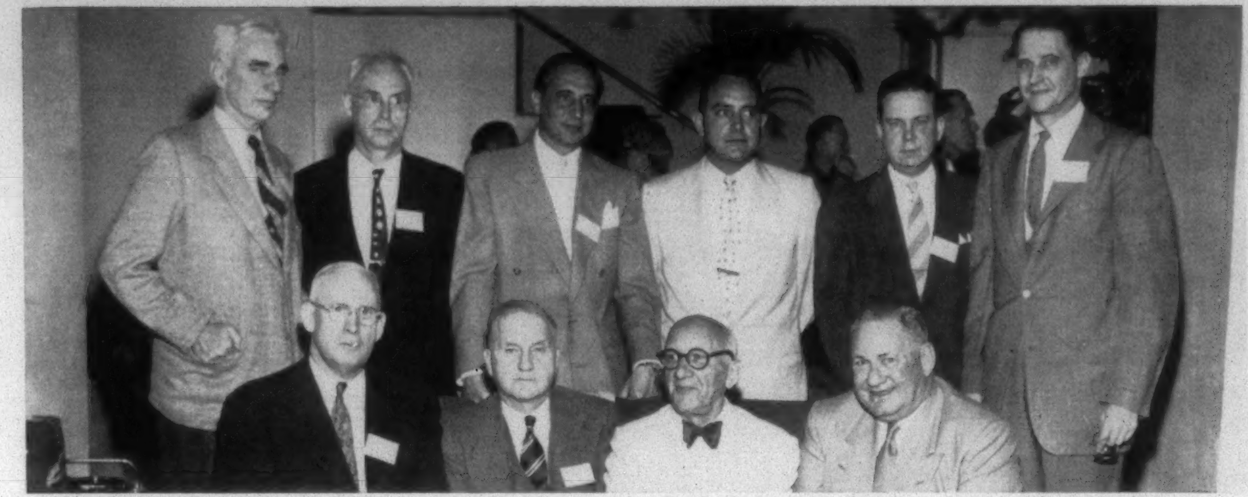
Obviously speaking with the June expiration of the Trade Agreements Act in mind, W. A. L. Sibley hammered home the point that initiative on the part of other nations can do more to improve world trade than can a further reduction of U. S. tariffs at this time. His remarks were in direct reply to some industrialists and producers of hard goods who are advocating lowering of U. S. tariffs in order to create freer world trade.

Mr. Sibley expressed the belief that the solution of the problem depends in a very minor degree upon lowering of barriers in this country. Where currencies are inconvertible and where import restrictions are imposed as at present, trade can take place only on a country-by-country basis, Mr. Sibley pointed out.

"What America has already done to contribute its part to trade expansion is commonly overlooked," the speaker asserted. "While the rest of the world has been tightening its trade restrictions, America has been opening its gates. Tariffs have been reduced by more than two-thirds since 1938." Mr. Sibley went on to say that the volume of imports is now four times greater than they were before World War II, and twice as great as they were in 1947. "These facts do not support the common belief that America is being stingy in its purchase of foreign goods," he said. The problem can only finally be solved by the lifting by foreign countries of restrictions on imports and exports. Maximum trade is possible only under multi-lateral trade, Mr. Sibley stated

After Mr. Sibley, the association heard a series of speeches during the course of the meet by leaders in their respective fields, including D. W. Brooks, general manager of the Cotton Producers Association; Charles R. Sligh, president of the National Association of Manufacturers; Robert C. Jackson, executive vice-president of American Cotton Manufacturers Institute Inc.; William McChesney Martin Jr., chairman of the board of governors, Federal Reserve System; Ed Lipscomb, director of sales promotion and public relations divisions, National Cotton Council; and Sinclair Weeks, Secretary of Commerce.

The parity system was vigorously defended by Mr. Brooks, who followed Mr. Sibley to the rostrum. He pointed out that cotton farmers are already being squeezed between rising costs and lower prices and need parity protection fully as much as labor needs a minimum wage and manufacturers tariff protection. Mr. Brooks told the manufacturers that cotton acreage may be increased five to ten per cent and, with favorable weather, the cotton crop could total some 15 or 16 million bales this year. He favored a continuation of cotton production amounting to at least



BETWEEN CONVENTION SESSIONS—Seated, *left to right:* John W. Clark, Randolph Mills Inc., Franklinville, N. C.; S. A. Steere, Goodyear Clearwater Mills, Cedartown, Ga.; Henry D. Mercer, Mill Factors Corp., New York City; Henry C. Ball, Tufted Textile Manufacturers Association, Dalton, Ga. *Standing:* Jarvis Cromwell, Iselin-Jefferson Co. Inc., New York City; Paul D. Ostrander, Goodyear Clearwater Mills, Cedartown, Ga.; Herbert L. Werner, Werner Textile Consultants, New York City; James I. Teat, Southeastern Enginering Co., West Point, Ga.; Thomas D. Ott, Lockwood Greene Engineers Inc., Spartanburg, S. C.; and David Escher, Goldman, Sachs & Co., New York City.—*Palm Beach Biltmore photo.*

AWAITING RESUMPTION OF MEETINGS—*Seated, left to right:* John C. Irvin, Crompton & Knowles Loom Works, Charlotte, N. C.; Frederic W. Howe Jr., Crompton & Knowles, Worcester, Mass., and president of the American Textile Machinery Association; Frank G. Williams, Roanoke Mills Co. and Patterson Mills Co., Roanoke Rapids, N. C.; J. A. Chapman Jr., Riverdale Mills, Enoree, S. C. *Standing:* James A. Chapman, Inman & Riverdale Mills, Inman, S. C.; W. N. Banks, Grantville (Ga.) Mills; E. J. McVey and W. Frank Lowell, Saco-Lowell Shops, Boston; E. H. Peniston, Arnall Mills, Newnan, Ga.; Robert B. Lee, Bankers Trust Co., New York City; Frank L. Walton, Catlin-Farish Co., New York; and C. C. Smith, National Bank of Commerce, Memphis, Tenn.—*Palm Beach Biltmore photo.*

MANY INDUSTRIES AND AREAS REPRESENTED—*Seated, left to right:* Archie O. Joslin, M. Lowenstein & Sons Inc.; Ralph Allaire, Utica & Mohawk Division of J. P. Stevens & Co. Inc.; George H. Moffatt, J. P. Stevens & Co. Inc. *Standing:* F. D. Taylor and R. W. Butler, Barber-Colman Co., Greenville, S. C.; Leonard Moretz, Carolina Mills Inc., Maiden, N. C.; W. W. Rader, Mooresville (N. C.) Mills; H. S. Grew Jr., Wellington Sears & Co., New York City; George D. Flynn Jr., Providence, R. I.; E. W. Rogers and J. C. Ballard, Barber-Colman Co., Greenville, S. C.; and Frank P. Barrie, Universal Winding Co., Charlotte, N. C.—*Palm Beach Biltmore photo.*

13 to 15 million bales a year beacuse, he said, "If we reduce our production to the point where we are only producing a sufficient amount of cotton for domestic mills, it would be a tremendous handicap to these mills since they would not have the wide selection of grades and staple that a crop of this size automatically provides."

The cotton association executive praised the manufacturers for becoming the largest exporter of cotton textiles in the world, and for the position they had taken at the International Conference at Buxton, England, when the American textile delegation had refused to go along with proposals to divide the world market for textiles, but insisted rather upon maintaining the principle of private enterprise. He also praised the manufacturers for the proposal they had made at the Buxton conference to help foreign spinners develop better methods of production and distribution and better sales methods. In this regard he said that the American economic system "has produced more food, more clothing, more luxuries than have ever been produced before. It seems to me that we must share this new system with the other peoples of the free world, or Russia is going to share their slavery with them."

Mr. Sligh told the manufacturers that businessmen, in the face of dire predictions of war and depression, have been guilty of seeking security rather than planning for progress. This is no time, he said, for business men to be concentrating on security, but rather "They must, as has been well said, continue to be the chief innovators and risk takers of society. Whatever the other groups of the population may do, businessmen cannot—they must not—seek safety. To do so is to forfeit the right of leadership.

"A new Administration has taken over in Washington and has given every indication of a true interest in the real welfare of the whole people of this nation. But it is perfectly plain, that if business does not prevent a serious recession through its positive planning and forward looking actions, any administration then in power, for purely political reasons, will take strenuous action to create jobs and seeming prosperity," said Mr. Sligh.

The report of Robert C. Jackson, the institute's executive vice-president, was an optimistic one. First on the rostrum at the Friday morning, March 27, session of the convention, Mr. Jackson said that the A.C.M.I. has given the industry the ability to speak out in a unified manner. The capacity to speak for all segments of the industry was not enjoyed prior to 1949, and it is coming into even greater and more valuable use, Mr. Jackson said. "While situations are bound to arise where complete agreement is not possible, these are far fewer than those occasions when all segments of the industry stand together for the common good."

Mr. Jackson praised the new Administration for its removal of controls, for its jurisdiction of bank credit which gives considerations of economic stability priority over government borrowing and inflation, and for its positive effort to balance the budget, remove waste from government operations and pave the way to earliest possible tax reductions. He said that "For the first time in many years, industry and agriculture have been given a proper balance in the Federal Administration. . . . the change has brough greater opportunities to business and industry . . . to guide the nation away from a course which was leading us to gradual acceptance of doctrines we know were unsound . . ." He went on to urge businessmen to give the new Administration a fair trial and not judge it solely upon what has occurred in the first ten weeks of its existence. He also told textile men "not to take undue advantage of the new voice and influence which the Administration has given business but rather to contribute through this new voice and influence the experience and organizing genius and the enthusiasm for the preservation of American principles of freedom and democracy which businessmen can contribute."

Besides the responsibility to plow back earnings into physical plants, Mr. Jackson concluded, it is the businessman's responsibilty to plow back an even greater investment in human values. "Failure on our part to recognize these responsibilities might bring consequences a very few years from now which could set off a far greater departure from the fundamentals of our free enterprise system than we have ever known before."

William McChesney Martin Jr., speaking from his viewpoint as chairman of the board of governors of the Federal Reserve System, told the A.C.M.I. in the second speech of the Friday morning session that the capacity of the American industry is so great that at some points adjutments have to be made. He said that even a continuous full-time employment schedule presents an impossibility and that labor may have to be more mobile to sustain a fuller degree of employment at times.

Citing the Korean "police action" with its consequent munitions program and more or less premanent mobilization requirements, Mr. Martin asserted the obvious fact that business is today at a high level. It has been the job of the Federal Board over the past couple of years to restrain excessive monetary expansion while at the same time making possible the extensions of credit for defense, for civilian business operations, and for normal growth of the economy, he continued. "It is difficult," he said, "to determine the monetary needs of an economy that is growing and yet facing, from time to time, risks of inflation and deflation. In trying to foster economic stability, we must seek to encourage dynamic economy, one that stimulates enterprise and invention, that fosters technological advancement, with it, greater productivity and a better standard of living."

"For the past two years," the banker went on, "discount and open market policy has been directed toward restricting bank credit and monetary expansion to the normal growth and needs of economy. . . . We have been achieving a number of new records—notably in total national output, in personal income, in employment of manpower and physical resources—and the remarkable economic fact is that these peaks have been reached without further inflation."

"There is definite reason to believe that cotton's future will be brighter than its past." So spoke Ed Lipscomb, sales promtion director of the National Cotton Council, in making the third of the Friday morning speeches to the A.C.M.I. "The response we have seen to the develpoment thus far achieved in such fields as crease resistance, luster, Winter textures, and various other chemical and physical applications is but a forerunner of the tremendous further progress that lies ahead as science really takes hold of cotton and its products."

While sounding the optimistic note, Mr. Lipscomb urged that all branches of the cotton textile industry unite to do the over-all job of increasing quality, reducing costs and promoting cotton goods. He outlined the Cotton Council's sales promotion program for the manufacturers and pointed out that is is geared to concentrate on markets that promise to be most productive, citing the case of the current canvas awning campaign, sponsored jointly with the manufacturers of canvas awnings. The result of that campaign has been that in four years, the consumption of canvas in awning and tarpaulin manufacture has jumped from 135,000 bales per year to last year's level of 264,00 bales per year.

Similarly, Mr. Lipscomb continued, the council has attempted to obtain co-operation from other groups inter-

In Which An Editor Cottons Up To The Maid

By D. M. CLARK

Miss Evelyn Beare *(right)*, tour secretary, and Miss Lillian Sledge *(left)*, tour manager, are the companions who make the arrangements for the Maid's public appearances.

Alice Corr, the 1953 Maid of Cotton, a nice young lady whose presence anywhere speaks well of the "king" fiber.

ANY WELL-INFORMED TEXTILE MAN knows that last year King Cotton accounted for 73 per cent of all fibers sold. This year, if the aspirations and activities of one Miss Alice Corr, Selma, Ala., have anything to do with it, that figure should jump all the way up to 80 per cent. It might even surpass that, if Ed Lipscomb and his National Cotton Council cohorts keep the rest of their promotional program in step with Miss Alice.

As a matter of fact, the aforementioned aspirations and activities of Miss Corr should have a great deal to do with cotton's continued prosperity, for the judges at the Maid of Cotton contest chose well this lovely and talented young lady who is serving as ambassadress for all of America's cotton industry.

Not that Maid Alice talks or thinks about the old fiber king in terms of dollars and cents, or even in percentages, for that matter, but she is so enthusiastic about the product she represents that it rubs off on the most casual observer. Not literally, of course.

We were lucky enough to have an opportunity to talk to Alice when she came to Charlotte just after returning from a trip abroad. Dressed in a "gun barrel" gray, full skirted dress with a red scarf (well, of course they were all cotton!), she walked into the room with such ease and grace that it seemed almost a certainty that she had been meeting the press for at least 18 of her 19 years.

She talked of many things, but it wasn't long before the conversation got around to that subject so dear to the hearts of so much of the South's citizenry—*cotton*. In that regard, someone asked Alice just why she wanted to be Maid of Cotton. "Of course," she said, "it was wonderful to have an opportunity to serve as ambassadress for the cotton industry, and at the same time do my part to build good will for the 18 cotton-growing states in particular and the United States in general."

The conversation then drifted around to King Cotton itself, and we asked Alice just how she liked wearing the product. "Oh, I've never been so well satisfied with a wardrobe," she said. "Everything I have is cotton—suits, blouses, under garments, nighties, swimming suits—even the lining in my shoes is cotton."

Well Alice, we said, would you be willing to wear nothing but cotton for the rest of your life?

"Oh I'd love it," was her enthusiastic response. "As a matter of fact, thanks to this tour, I already have most of my wardrobe for the next few years and it's all cotton." It was easy to see that the young lady meant what she said.

"Europe was a wonderful experience," the Maid said. "It was my first trip abroad, and those people are so hospitable and seemed so happy to have us there. During our stay we were in France, Holland, Italy and Utrecht, and in France I was outfitted in cotton creations by Pierre Balmain, Schiaparelli, Jacques Heim, Serge Kogan, Madeleine de Rauch, and Patou."

Some wag asked Miss Corr if she liked the Frenchmen she met. "Of course I liked them," was Alice's reply—"as well as the French women," put in quickly Miss Lillian Sledge, tour manager.

Somebody else asked the Maid if she she got down on the Riviera during her European travels. When she replied that she didn't, they hazarded the opinion that it was too bad she didn't get to model a Bikini.

"Oh I couldn't model a Bikini," she retorted, "there's not enough cotton in a Bikini."

The Maid talked to complete strangers with a casualness that made everyone feel at home, and it was easy to see that she was having the time of her life on the tour. When Miss Evelyn Beare, tour secretary, mentioned something about next year, Alice said emphatically, "Oh don't mention next year. This has been such a wonderful experience that I hate to think of it ending."

Don't you think you'll be tired of it by next July, we asked. (The Maid of Cotton tour ends with a trip to South America in July.)

"No, I won't be tired of it," she predicted. "People said I'd be tired by April, but right now I've never had so much fun, and I feel that I could go on forever. The only drawback is that we never stary in one place long enough to really get to know it well."

Alice hasn't decided yet whether she will go back to the University of Alabama next year or will return to Randolph-Macon College, Lynchburg, Va., where she spent her freshman year. She is planning to major in mathematics because, as she puts it, "I love working with figures." She is also very interested in golf, tennis, riding, swimming, piano and painting.

After leaving Charlotte, the Maid told us that she, Miss Sledge and Miss Beare would fly to Philadelphia for the first stop in a tour through New England, after which they would swing back into the deep South again before heading out into the mid-West for stops at Chicago and Denver, among other places, and up into Canada for a good will visit with the Canadian textile industry. The tour will officially close July 20 after a month-long trip into South America. Incidentally, the Maid of Cotton's official sponsors are the National Cotton Council of America; the Cotton Exchanges of Memphis, New Orleans and New York; and the Memphis Cotton Carnival Association.

ested in the promulgation of cotton goods. These campaigns have benefitted both the participants and the cotton industry in general. Some of these campaigns are the cotton bag drive conducted in conjunction with the Textile Bag Manufacturers Assocation and the Cotton Bag Market Committee; the linen supply campaign in co-operation with the Linen Supply Association of America; and the Maid of Cotton program, a co-operative effort with a substantial list of organizations and firms behind it. Over-all, Mr. Lipscomb stated, that the cotton program has been a success, pointing out that "in the worst year since the program was launched, United States consumtion of cotton products was better than in the best preceding year."

Secretary of Commerce Sinclair Weeks told Saturday morning's concluding session of the A.C.M.I. that operation of government departments are being put on a businesslike basis, with savings of millions of dollars. However, government operations could be put on even more businesslike basis if the new Administration were not hamstrug by conflicting authority, red tape legislative commitments and other drawbacks.

In this his second public appearance, Secretary Weeks said that the Administration encourages action rather than talk and that "This Administration is proud to use business brains and business principles because the business community has made an outstanding contribution to the security and advancement of our country." He called on the manufacturers to join in the crusade to put government on a businesslike and efficient basis.

Secretary Weeks defended the Civil Service and those within its framework who are doing a conscientious job, but at the same time he pointed out that many abuses have developed in the system which have no place there. He said that the practice of "bumping," or standing on seniority rights, will cost the Department of Commerce $700,000 in the next few months.

* * *

How the textile machinery industry has kept abreast of every new fiber development, adapting machinery to meet every textile mill's processing needs, was discussed by leading manufacturers in radio forums held during the fourth annual convention of the American Cotton Manufacturers Institute.

Frederick W. Howe, president of the American Textile Machinery Association and Crompton & Knowles Loom Works, stated, "The fundamental purpose of a machinery company is that each new machine must insure a benefit to its mill customers in reduced labor, in better quality of the mill's product or increased output per machine or per worker at lower mill costs." He said, "Because of many national factors, such as high taxes, low depreciation rates and other increased costs of textile production, machinery research directors and inventors have been working 'overtime' to give textile mill customers more types of machines designed for more efficient production."

Necessity for modernization programing of America's textile mills to hold its position in a highly competitive world market was stressed. In the past five years, textile mills have made capital expenditures for expansion of facilities and replacement of equipment totalling nearly two billion dollars. Indications are that all business is planning efficiency programs, and that an estimated $300 million will be spent by textile mills on such programing in 1953.

D. L. Friday, general manager of Cocker Machine & Foundry Co., Gastonia, N. C., pointed out that technical assistance divisions established by many American textile machinery manufacturers represented heavy outlay of cash resources and were maintained to service textile mills at an annual operating cost of several million dollars. He said, "These technical services rendered without charge save many times that amount for textile mills in maintained quality production and greater efficiency in mill operation."

William K. Child, vice-president of Draper Corp., discussed the American Textile Machinery Exhibition to be held in Atlantic City in 1954, describing it as the greatest educational event ever held in the industrial machinery field, and an opportunity for the public to see the machines of tomorrow, many of which are still in stages of research, or on drafting boards today.

W. A. L. Sibley, vice-president of Monarch Mills, Union, S. C., and outgoing president of the A.C.M.I., stressed that textile manufacturers owed their industrial progress to research and developments made by textile machinery manufacturers and the friendly co-operation between the two industries for the past 140 years of American textile history.

Life Among English Textile Workers

By WILLIAM HAYS SIMPSON – Part Three

WHILE the writer does not propose to trace the history of housing in the various cities of Lancashire it is noteworthy that steps were taken by the government during the past several decades to relieve the housing shortage which has existed since, and possibly before, World War I and became even more acute after the recent war. Since 1947 various municipalities have constructed thousands of homes and numerous large housing units. Cities not only have endeavored to care for the housing needs of their resident but also to gradually eliminate tenements and back-to-back houses. The benefits of housing programs are enjoyed by textile workers along with other members of of the communities but those who moved from low standard houses to recently completed Council homes now pay considerably more in rent for their living units. The amount of this increase varied but the rent of many workers thus advanced from six or seven to 15 or 16 shillings a week.

In interviewing the approximately 500 cotton mill workers in seven different cities of Lancashire an effort was made to learn something about each operative's home and the conveniences there enjoyed. If the worker interviewed was unmarried and lived with his parents, as was the case with

74, or with other relatives or friends he was asked about his parents', other relatives' or friends' homes whichever the case may have been. In a few instances the workers could not or did not desire to answer certain questions and consequently replies, of course, were not recorded of those parts of the interviews. No effort was made to select the operatives interviewed as each worker in a department was invited to participate. While some refused the extended invitation, others very graciously responded.

With this group of 499 workers, four-room dwellings were the most common sized home since 232 lived in four, 116 in five and 106 in six-room houses. The others dwelt in larger or smaller abodes. Of those interviewed only 140 said they had inside toilets while 207 had bathrooms with cold running water, but many were not equipped with hot water. In practically all cases the flush toilet was built on to the rear of the dwellings. Almost all of the homes were heated by stoves and fireplaces. Two dwellings were heated by gas heaters. Only one home had central heat. All homes were lighted by electricity except 31 where gas was used and one in which oil lamps were used.

Household conveniences are not common among the English cotton mill workers for of the 499 operatives interviewed 279 did not have vacuum cleaners in their homes and of the 95 washing machines owned by members of this group only 47 were automatic. However, 441 owned electric irons, 25 gas irons and 33 depended on flat irons heated on coal stoves for ironing purposes. Of the 274 sewing machines owned by the families of the group interviewed, 13 were electric, 238 foot run and 23 hand run machines. As only seven of the 499 families had telephones in their homes the vast majority of workers depended on telephone booths (pay stations) located in stores, public buildings and on the sidewalks in various sections of the cities. These they used sparingly, usually only in cases of emergency, such as sickness.

Nor does the cotton mill worker move with ease on the outside. Only ten of the 499 operatives interviewed owned or were members of families which owned automobiles. Several of these ten cars were used for business purposes. For example a wife might work in a cotton mill and the husband run a delivery service. Such arrangements also accounted for the installation of some of the seven telephones mentioned above.

About 80 per cent of those interviewed either rented rooms or houses. The rent varied from five to 30 shillings a week but 309 of the 402 renters lived in homes which rented for six to 15 shillings a week.

The vast majority of workers believed home ownership desirable, 97 of the 499 interviewed having purchased homes. This was possible because of the small down payments, the low interest rates of from four to five per cent a year and the 15 to 25-year periods permitted for amortization of the mortgages.

But whether the operative owns or rents his home he will in almost all instances possess a radio on which he pays an annual tax of one pound to support the British Broadcasting Co. Listeners may choose between three different programs all paid for by the tax. There are no commercials as in America and the choice of programs is, of course, infinitely more limited.

As the Summers are relatively cool in Lancashire cotton mill workers do not often buy ice. Few if any families have ice boxes and it is unlikely that one operative in a thousand owns a frigidaire. Perishable food is bought in small quantities and is kept in cellars or closets at slightly lower than the outside temperature. Possibly because of the non-ownership of ice the English people in general prefer non-iced drinks served at room temperature. Usually when an Englishman complains of being overly warm he reaches, not for an ice-cold soft drink, but for a hot cup of tea to aid in cooling him off. It is therefore possibly needless to say that there are no requests for icewater by workers in the cotton mills nor are ice-cold watermelons a feature of the Summer market.

Religion and Recreation

As one's participation in religious activities and various forms of recreation often depends on the age of the person and upon the sex, note should doubtless be made of both at this time. Of the 499 workers interviewed, 329 were women and 170 men. Of the total number 46 were not yet 20 years old, 357 were between 20 and 50 years of age and 96 were over 50.

The vast majority of those interviewed enjoyed church membership, 306 belonging to the Church of England, 58 were Methodists and 36 Catholics. Several operatives were Presbyterians, Unitarians, Baptists or of some other Christian faith but only 189 said that they attended church regularly. Forty-nine of this number usually went to Sunday School.

A number of the church members were active in religious work. The group included two lay preachers, six church officers, ten choir members, one Sunday School superintendent, four Sunday School teachers, various guild workers and other assistants in church projects.

Of the 168 who said that they participated in church socials, 130 attended church sponsored dances, while 48 regularly went on outings with church groups. Some, of course, joined in both activities. But the churches which most of the cotton mill workers attended did not have highly organized activity programs, being limited usually to occasional dances and hikes.

Very few mills offered amusement or recreational programs and those which did were considerably limited in scope. One mill in its continuation school gave instruction to boys and girls in setting up exercises and annually holds a sports program in a nearby field. The events include egg and spoon, potato, sack, three-legged and blindfold races as well as tug of war, relays and an 880-yard run.

Some mills have departmental bowling, cricket and football teams and occasional matches are held, with teams from other mills. There are no regularly organized textile mill leagues. While only 26 of the 499 operatives interviewed participated in athletic games, 226 were fairly regular spectators at inter-departmental or inter-city matches. Of the 226 athletic fans, 117 preferred fooball, 40 cricket matches. Some expressed no preference while a few attended only bowling, boxing or tennis matches. One operative was a dog race enthusiast.

In American standards no enthusiasm is shown at athletic contests be they inter-mill or inter-city. There is no "baiting" of the umpire, no yelling for or against a team but there is a suppressed desire to win and a ripple of applause occasionally follows a well executed play. However strong the spirit to win may by in a team the players must carefully observe even the minor rules of the game or face condemnation of the spectators for unsportsmanlike conduct.

Baseball is relatively unknown in England, bowling is on the green not on alleys, the popular football game is similar to American soccer, basketball is not played by any of the operatives and is looked upon as a girls' game and the "World Series" of the area is the cricket match between Lancashire and Yorkshire.

As compared with the Summer season in North Carolina, Lancashire would indeed be considered a very cool area. Carolina Winter weight suits are comfortable wear on Summer days in Manchester. Because of the cool air and colder water, swimming is not attractive to American visitors nor to the approximately 10,000 members of the American air force stationed about half way between Manchester and Liverpool. However, in spite of the advanced age of many of the operatives interviewed, 103 of them said they swam fairly often during the Summer season. Hiking, which in general is more popular among the English people than swimming, was engaged in by only 90 of the 499 cotton mill workers interviewed. Perhaps the workers feel that they stand and walk a great deal at their work and when Sunday comes they would far rather do something other than hike—even swim in the cold water. One would hardly expect a mule spinner, for example, to undertake a ten-mile hike on Sunday after walking back and forth with his machine in the mill all week. Those persons who do hike usually consider ten miles as a minimum walk for the day. Hiking clubs are active throughout England and thousands participate in this pleasure every weekend throughout the Summer season.

Bicycle clubs are also very common throughout the area and on Sunday many groups engage in this pastime. This form of recreation, while most popular with the younger set, is often engaged in by the more advanced in age. One, possibly an unusual gentleman over 60 years of age, reported with considerable regret that he recently had to cut his cycling from 70 to 40 miles on Sundays. Many English subjects carrying food and beverages in their packs depart early in the morning for numerous distant destinations. Often included in many of these groups were 121 of the 499 operatives interviewed at the various mills.

Films Are Mostly American

Textile employees of all ages go to the cinema with over 40 per cent of those interviewed seeing between one and three movies a week. They know American actors and actresses almost as well as do movie fans in the United States and many cotton mill workers expressed a preference for American over English films. One young lady, however, upon being asked which she preferred said "I wouldn't be bothered" which Americanized means "six of one and half a dozen of the other."

Many of the American films shown at theaters in Lancashire are old releases and admission charges vary from the equivalent of from 15 to 20 cents to 75 to 90 cents depending upon the type of theater and location of the seat purchased. Some motion picture houses have two prices of admission, others have three or four depending upon the size of the theater. The highest priced section is usually located in the first part of the balcony and the cheapest seats near the front and along the side of the first floor. The rear seats, popular with courting couples, are also usually low priced. Some theaters have thoughfully equipped these rows with double seats. The vast majority of cotton mill workers and many other patrons buy the cheaper admission tickets. As the demand for these seats is great and the supply limited it is not unusual on week-ends to see long lines of persons awaiting admission, often in the rain, to the lower priced sections of motion picture theaters.

Another form of recreation popular among cotton mill workers is dancing. One hundred and ninety-one of the persons interviewed said they attended public dances frequently throughout the year. Fifty-six of this number reported they went once a week while 28 said they attended two or more dances weekly. The admission charges vary but are usually between two and three and a half shillings depending upon the size of the orchestras and dance floors. Some boys take their girl friends, others by prearrangement meet them on the inside and still others attend dances with the anticipation of assisting in the entertaining of numerous unescorted young ladies. The dances are very orderly and only on rare occasions has it been necessary to restrict a patron.

While the younger folks dance many of the older generation attend dances to listen to the music, talk and watch the dancers. Numerous dance halls provide tables where tea, soft drinks, cakes and the like are served. The income of cotton mill workers, however, is such that they can't spend much on refreshments and when the 11 o'clock closing time has come many are well along on the way to their homes.

An enjoyable social center for the older cotton mill workers is the neighborhood pub. Almost one-half of the operatives interviewed, 239, frequented a pub during the year, 177 of whom visited their pubs from one to seven times a week. Of the 177, however, 145 went to pubs once or twice a week, almost exclusively on week-ends. They reported that their stays were from one to three hours during which time many stories were told and numerous bits of news exchanged.

Pubs throughout England have various appearances, some being unusually attractive and serving excellent food. However, the pubs frequented by textile workers have few if any of the exterior charms of those of the rural areas of England. Nor would a visitor say that their interiors were either quaint or attractive. The pub known by cotton mill workers is usually equipped for service for a fairly large group of people. There is always a bar with a minimum of trimmings, tables, some chairs and long benches along the walls. Few, if any, pictures adorn the walls but pictorial advertisements of various beverages are on display. Pianos have been placed in many pubs and on the week-ends musicians are employed to entertain the customers. The vocalists, while greatly limited in musical ability, are usually able to engage the patrons in voluminous singing.

Such pubs overflow with both smoke and conviviality. Everyone seems to be the other fellow's friend with cares forgotten for the evening. A cotton mill worker may spend the evening in merriment over a glass of ale or one beer. The latter is by far the most popular drink not always because of desire but because of price. Champagne, whiskey and brandy are too expensive for operatives and the cheaper drinks appear satisfying. Consequently the vast majority of cotton mill workers reported that they seldom spent over five shillings a night for beverages.

But the evening is not always divided between drinking.

singing and talking. Many play cards, cribbage, snooker, darts, dominos and checkers. This equipment is supplied by the management and in some places bowling greens are made vailable for customers.

It would not be correct to conclude that the overcrowded pubs lead to disorder. Profanity is seldom used by an Englishman and offensive language and fighting is most uncommon in neighborhood pubs. If a person becomes too boisterous he is usually cautioned by the proprietor. For conduct considered obnoxious the guilty one may be denied the right to enter the pub again. Such censure is regarded as a social disgrace and the recipient is greatly shamed.

But the English people do not like to be confined to the indoors during favorable weather. Gardening, sports and the like represent a part of their interest in the outdoors. On Sundays railway and bus stations are filled with men, women, children, whole families, usually with boxes of food, seeking passage to numerous places for a day's outing. And included in this mass of people are of course cotton mill workers. Approximately two-thirds of the operatives interviewed went on several such outings during the Summer but the vast majority limited the cost to a pound or less.

The policy of holding mill or departmental outings once a year by the mills varies in Lancashire. Some mills subsidize or pay the expense of one outing a year for their employees. On such occasions the groups may go to seaside resorts, to Manchester or to some other nearby places of interest. Other mills arrange for transportation and make reservations for employee groups but do not contribute to the costs.

Regular deductions are made in pay in numerous mills for vacation periods. The accumulated sum is paid the operatives twice a year, at Christmas and at the beginning of the Summer vacation.

Annual vacations in Lancashire are taken on designated weeks by towns which means that on a specified week all industries within a defined area will be closed. Under this plan all members of families working at various mills within the area are able to vacation together. Disappointments doubtless result in instances where family groups are not employed in the same area. Husbands and wives have been known to go on separate vacations and during the period of full employment wives have taken two vacations—one on their own and one with their husbands. In such instances cotton mills were deprived of the services of various married women. But by staggering the vacations by towns or cities the most popular playgrounds are not unduly crowded and the transportation facilities are not badly strained.

Cotton mill workers quite naturally look forward to the Summer vacation. Of the 499 operatives interviewed, 345 went somewhere on their vacation the year before. The older operatives and those with many children composed a large portion of those who remained at home. Of the above mentioned vacationing operatives, one went to Belgium, one to Austria, five to London, 27 to Isle of Mann, a fairly large number to various places in South England and North Wales but only a few vacationed in the nearby famous Lake District. While Windemere got hardly passing notice, Black Pool, a nearby resort on the Irish Sea, has fascinated the cotton mill workers for some years. No less than 94 of the 345 hastened to enjoy their vacation in the bright lights of the so-called "Atlantic City" of England. Here, while crowds enjoy an excellent boardwalk, a relatively few take advantage of the fine beach and those who do usually swim sparingly. It is not difficult to meet the sun requirements and there is no demand for beach umbrellas. A large portion of Black Pool is quiet with good ocean front hotels but it is the white way that attracts the operatives with its tall multi-lighted tower and large beacon lights. Many large motion picture houses dot this area and here and there are some modified "girlie shows" with "real" American cowboys whose speech is remotely American and who reflect the influence of Western films. Here, too, are many games of chance where the crowds push in to win on the wheels of fortune. At a shilling a chance an operative may in time succeed in winning a highly colored ornament, a drinking

* * *

We've been digging in the yard lately, and what we'd like to know is how big a fellow's garden has to be before the government will pay him for not planting it.—*Carlsbad* (N. M.) *Current-Argus.*

A fellow said the other day he had always heard that the "rich get richer and others have more children." —*The State,* Columbia, S. C.

The most lucid economist we ever heard tell of was also the most comfortable, as he held forth in the end rocking chair on the poorhouse porch. —*Unadilla* (Ga.) *Observer.*

ISRAEL'S TEXTILE INDUSTRY, represented by this loom recently installed at Ata Textile Co. Ltd., near Haifa, will benefit from the current State of Israel Bond Issue, which is designed to provide funds which will be used to establish new plants, replace obsolete machinery and expand capacity.

glass or some useless trinket. It is not unusual for cotton mill workers to spend the equivalent of a week's wages to win a cupid doll.

The younger group particularly enjoys the facilities of the large dancing pavillion. Merry-go-rounds, ferris wheels and other similar amusements operate near or at capacity while the vendors of candied apples, ices and souvenirs do a land office business.

It is little wonder that many of the operatives who have participated in various savings plans and who have left for Black Pool with full pocketbooks return home a few days later with only a few worthless trinkets. They have spent to their last shilling but they have had their fling of the year. As the memory of this event fades with the passing months the anticipation of a return visit to Black Pool becomes greater and greater.

For the enjoyment of those who vacation at home small carnivals, often called "Wakes" by the Lancashire people, go from town to town. Much like the carnivals or small fairs in America, there are games of chance, dancing girls, merry-go-rounds, ferris wheels and other amusements.

Marketing Is Even Recreational

While marketing is often considered a chore by the American housewife, the cotton mill operative's wife in Lancashire usually enjoys her visits to the marketplace on Saturdays. As the serve-yourself type of store is just beginning to appear in English cities and super-markets, so common in America, have not yet been established in this area, the open markets continue very popular with the people. Here small children often enjoy playing on slides and riding miniature trains. Their parents meet their friends and exchange friendly greetings. Marketing, therefore, has certain recreational aspects.

But there are many offerings for the discriminating housewives. Numerous tables are filled with fresh vegetables, fruit and meats, others with candy, staple groceries, wearing apparel, cooking utensils, household furnishings, glassware, jewelry, traveling bags, ladies' pocketbooks, silverware and many other things.

A unique feature of these open markets are the auctions conducted at certain reserved stalls. Whether the articles for sale are rugs, traveling bags, blankets or what not the auctioneers offer the commodities for sale at first at high and unattractive prices and then as they "cry the sales" they reduce the prices. One cotton mill worker aptly said, "don't take his first price, wait on him for awhile." A sale begun with a request for a pound bid on an article may be consummated for 12 or 13 shillings. Thus only an experienced and an astute buyer knows the propitious time to place his bid. The general rule, therefore, among the buyers is "don't be in a hurry," and since many of the auctioneers are highly entertaining, no impatience is shown even among the non-buying spectators who usually outnumber the buyers at auction stands. The Lancashire people are in general cautious buyers and no one knows that better than the auctioneers. They also know that the cotton mill workers are unusually witty and therefore they combine wit and business to outwit them. During the process, however, since no one is certain of "who is taking who" a good time is had by all.

Whether it be at church activities, sports events, dances or at other places the young people of Lancashire, or elsewhere, seek social contact. These contacts have their limitations, as in other localities, even in the textile mills themselves where, for example, young people working in the spinning rooms often do not look with favor upon having dates with those employed in carding rooms.

The matter of dating, however, is cared for by the children of cotton mill workers without parental assistance and with limited supervision. The young people start their dating on "neutral territory," the boys meeting their girl friends at designated places. After seeing a movie, attending a dance or an athletic match, the young gentleman may accompany his date to within a block of her home. As their meetings become more frequent he may go closer to her home. In the meantime the girl's parents, having become aware of their daughter's actions, quietly make inquiries about her escort. After this form of dating has gone on for some months or even a year the young lady may invite her suitor to tea (dinner) and he then formally meets her parents who, by that time, doubtless know a surprisingly lot about him. At this stage the young man has what is commonly called "his feet under the table" or as one textile mill foreman expressed it, "he is hooked." From then on the parlor of the girl's home is available to the couple for dating purposes and it is not customary for either to have dates with other persons.

Courtships and engagements of cotton mill workers are often long because of the difficulties involved in saving a sufficient amount of money for marriage. Then, too, living quarters are difficult to find and many prefer to delay their marriages rather than live with in-laws in very limited quarters.

These long courtships and engagements, often from five to seven years, may account in part for the relatively small percentage of divorces among cotton mill workers. And the moral standards of textile workers are high. No cotton mill town in Lancashire is considered a lawless center of England nor is any community in which cotton mill workers predominate considered contaminated or disorderly. Quite the contrary, the areas are, in general, inhabited by both an orderly and a forthright people.

But there are some of the older group of textile workers who express regret that the moral standards are not as high as they were some years ago. The change has been attributed to the war. One man pointed out, for example, that today a single woman who has been indiscreet with a single man is only given passing censure and the woman who has an affair with a married man, thus disturbing the peace of a family, is subjected to greater discipline. A few decades ago, this condemnation often developed into a demonstration on the part of the workers. Women guilty of the more serious indiscretion have been followed to their homes by silent groups of 50 or 75 other employees of the mill. After the journeys were completed the escorting employees quietly returned to their own homes. On other occasions housewives have been known to quietly turn their backs on the sinning women as they passed on the streets. Such public condemnation has been replaced today by a relatively mild form of censorship by a single family action of non-association.

What this country needs is a Federal Bureau of Consolation to tell us there will be no income tax to pay on money earned the 25th hour of the 32nd day of the 13th month—unless the calendar is changed.—*Batesville* (Ark.) *Guard*.

James C. Self, who during his career has been busy with other and more essential modern subjects than office furniture, is shown at his desk.

Greenwood Story

The Unselfish Mr. Self, 1953 'Man Of The South'

By HENRY LESESNE

Textile Information Service

MONUMENTS are erected to soldiers, statesmen and scientists but seldom if ever to the business or industrial genius. This is due, no doubt, to the assumption that the industrialist or businessman, more than anyone else, is what he is because of the incentive of financial gain. Of course it can be, and frequently is, pointed out these days that this most powerful inducement which business or industry has to offer—the incentive of financial reward—has been and is being drastically reduced in importance.

Be that as it may, however, business and industry are, to a large degree, anonymous except for possibly a few glamour jobs. There are no medals, decorations, stripes, uniforms or grandiose titles and even a bit player on television or a second rate playwright is far better known than most leaders of industry, whatever their broad contributions to society and to the progress of mankind.

The South gives recognition of a public sort to its builders and industrialists probably more than other regions. Each year, for instance, the magazine *Dixie Business* conducts a vote to determine a "Man of the South" who takes his niche in what is known as "The South's Hall of Fame for the Living"—while he is yet alive. So far seven men have been chosen for this recognition, the latest being a fabulous home-grown textile manufacturer and also a fabulous philanthropist, James C. Self Sr. of Greenwood, S. C.

From less than scratch this man built one of the nation's notable textile organizations and has given a great part of his earnings back to his employees and the people of his community in one form or another. Quite naturally he is a legendary figure even in his lifetime. The fabulous stories about such an institution of a man are legion, and it might be difficult at times to separate fact from fiction. But a story which Ed Chaffin, managing editor of the Greenwood *Index-Journal,* vouches for is this:

A few years ago the officials of Greenwood Mills' selling house in New York, Greenwood Mills Inc., brought a group of newspapermen down to Greenwood to tour the ultra-modern textile plants and the mill communities where handsome brick bungalows that would cost $10,000-$20,000 anywhere are rented on the unbelievable basis of 50 cents to $1 per room per week.

This was the occasion, too, for an important announcement by Greenwood Mills which surprised the industrial world. The organization was making known it was launching a 20-million-dollar modernization and expansion program—without any financial assistance. At the same time announcement was made of a four-million-dollar hospital which Mr. Self was going to build and present to the City of Greenwood.

The announcement was made from a prepared statement at a luncheon. Mr. Self reeled off the figures almost casually, mentioning $6 million for this project, another $6 million for that one, $2 million for improvements at a certain mill, and so on. Mr. Chaffin jotted down the figures as rapidly as he could. Later he went to Mr. Self's office to check the figures and make sure he had them right.

Mr. Self, sitting at his old roll-top desk, a fixture that is somewhat of an incongruity amid the modern atmosphere of the offices, reached for the telephone. "I'll tell you the truth, Ed, I'll have to call somebody else to get those figures checked for you. You know, when people start talking in terms of more than $75 or $100, I don't know what they're talking about."

There's one story, though, that Mr. Self tells on himself, and it involves an amount a little more than $75 or $100. With cotton, the mainstay of his widowed mother's farm, bringing around four cents a pound, he couldn't go but his freshman year at Clemson College, even though he dug ditches, along with some other students, at eight cents an hour to get extra money. He went to work at the country store of Durst & Mathews at Kirksey and at the end of three years was making $20 a month. With the goal in mind of taking a business course, he managed during that time to save the prodigious sum of $150. Business colleges weren't common in those days and he went all the way to Richmond, Va., to enroll in one.

Quite understandably, young Mr. Self didn't like the idea of carrying around so large a sum, for which he had worked so long and hard, in his pocket. In fact, it was very hard to sleep at night, worrying about it.

So he walked down Broad Street in Richmond looking for the biggest and strongest bank he could find. He picked out the Merchants National Bank and strode up to a teller's window and announced that he wanted to make a deposit;

"I'm sorry, sir," said the teller, "but you'll have to be introduced."

In less than a split second young Mr. Self poked his hand right through the little window and announced: "J. C. Self of Greenwood, South Carolina." Today when Mr. Self recalls the story he concedes that the bank teller knew he was a greenhorn, all right. But the bank teller took the $150 deposit, without further question.

That incident when he was a young man had nothing to do with it, of course, but a few years later Mr. Self was destined for a banking career in Greenwood. He had risen to cashier in the Bank of Greenwood. Chance and a final acceptance of a bit of advice from James B. Duke, the tobacco and power magnate—"Jim, you can't get anywhere lending $50 on a blind mule"—diverted him to textiles and created what is known as the "Greenwood Story," a saga of American enterprise.

Let's go backward a little with the story: About 15 years after J. C. Self was born at Kirksey in Edgefield County, son of a doctor and farmer, the original Greenwood Mill was organized in Greenwood in 1890, with W. L. Durst the builder and first manager.

It was a sort of community project, as were so many mills that were started in the South during and following Reconstruction. The local citizens bought most of the stock on the weekly installment plan, paying 50 cents to $1 a week on each $100 subscription. The little mill had only 2,500 spindles and produced sheetings. Later it was expanded to 10,000 spindles.

Enter Mr. Self, Cotton Mill President

When Mr. Durst died, his brother, J. K. Durst, who was president of the Bank of Greenwood, was elected president of the mill. He built a second mill in Greenwood, bringing the total spindleage to 20,000. But by 1908 the mill had hit upon hard times and run into debt to an extent greater than their worth. In that year, with the mills literally gasping their last breath, Mr. Self, still cashier of the bank, was elected to head the Greenwood Cotton Mill. The bank had $40,000 of the mills' total $60,000 capital in a mortgage. The doom of the enterprise seemed plainly marked. Anyone would have considered it hopeless, so run down was the little mill of 250 employees. A firm of textile engineers was called in to view the situation. Its advice: "The best thing that could happen would be for the mill to burn down."

Though elected president of the mill, Mr. Self hardly knew a spindle from a loom. Perhaps no one could have blamed him if he'd positively refused to have anything to do with cotton. He well remembered the day at 18 when he'd taken his mother's four bales to town and received $100—representing a year's toil. Frugal by habit, Mr. Self had saved a little money. He thought if he could borrow some more or sell enough stock, he could get things running. He was convinced that if the mill was to be operated successfully or to compete with other mills it would have to be thoroughly re-equipped and modernized with latest machinery.

For a few years he was both bank cashier and mill president until one day, remembering the advice of James B. Duke, he resigned from the bank and summoned all the initiative and resourcefulness he could to getting the mill out of debt, putting it on a profitable basis, and straightening out production problems. He made two trips to Boston and accomplished the seemingly impossible. Mostly on sheer "nerve" he persuaded hard-headed machinery manufacturers, who certainly weren't accustomed to doing business that way, to give him new automatic looms and modern machinery for notes and preferred stock in the enterprise which textile engineers had looked upon as worthless.

In a few years Mr. Self was able to double the size of the mill. That's been the story ever since of the organization of which he is head man—modernization, full-time operation, ploughing back of earnings, expansion keyed to trade trends, and making what the customer wants when he wants it.

Today the organization of Greenwood Mills consists of four of the most modern mills in the industry and another $6 million plant, the second to go up since World War II, now abuilding. These air conditioned plants provide nearly 6,000 jobs and the number will probably be upped to nearly 7,000 when the new Durst Plant is completed.

The largest thing in the growth and development of Greenwood, of course, has been the growth and development of Greenwood Mills. In an attractive 50-page brochure on Greenwood gotten out by the local chamber of commerce and which is a notable performance for any city of less than 15,000 population, some of the Greenwood story is pin-pointed with statistics. They are all impressive, but significant indeed is the fact that while there are 14 counties in South Carolina larger in population than Greenwood, there are more people in this county employed in manufacturing, in proportion to population, than in any other county of South Carolina, and the median family income is higher in Greenwood than in any other county.

So far as Greenwood County is concerned, there is nothing to the adage that a prophet is without honor on his own doorstep, and countless recognitions have come to its "first citizen." By resolution, the city council some years ago dubbed J. C. Self "Colonel of Industry." Colleges have awarded him honorary degrees, and so on.

He is the second textile manufacturer to receive the "Man of the South" award, the first having been Donald Comer, then chairman of the board, Avondale Mills, Sylacauga, Ala., in 1947. The textile organizations which these men have helped so much to build are known far beyond their offices and plants for their human assets as well as their industrial efficiency.

Of course there are other stories and careers in the textile industry of a similar type. The true measure of the success of such men is not altogether what they have been able to do with looms and spindles and mills but what they have been able to do for people, the people who work for and with them, and the people of their community and state. They might be called shining examples of the heart and soul of industry under a full flowering of the free enterprise system.

The Self story and the story of Greenwood Mills is, of course, one of the epics of American industry. What does Mr. Self think about the future of the textile industry and the opportunity in this basic industry for the young men and women of today?

"There's more opportunity—and a great deal more glamour—in textiles than when I got into the business," he says. He also expresses the view that with the population spurting, and textile spindleage having sharply declined in the last few decades, the industry is "leveling off" and that, except under extreme conditions, well-managed mills will always make money.

On Education

Textiles in recent years have become the most revitalized of America's large industries, Mr. Self says, and the opportunities in the industry for college and scientifically trained personnel are almost without limit. "We feel that a textile college education is the quickest way for young men today to get the basic training and needed background for our modern requirements in the mill. We have many textile school graduates in our plants. Personally, I feel that textiles are the biggest thing in this part of the country, and offer good prospects for the young man seeking a future. We are appreciating the textile graduate more and more each year."

For the presentation of the "Man of the South" award to Mr. Self the Greenwood Chamber of Commerce arranged a banquet in Greenwood which was attended by some 300 notables not only in the field of textiles but in other lines of endeavor from all over the South and the East. He heard himself extolled and he heard the Greenwood story cited as the classic example of the capacity of industry to grow and create rich dividends, both material and human, within the framework of the economic system established by the founders of America.

After receiving the award, Mr. Self made one of the few public talks he has ever been known to make. He is the first to take pride in the fact that his associates have made Greenwood Mills an outstanding achievement along with him, and he said in part: "Any success I may have achieved is due not to my own efforts but to my co-workers. They have been faithful and loyal and I've been fortunate in being associated with them. I love the South. I love the people and the South and the traditions. In my more than 76 years I have seen the South rise Phoenix-like from defeat and become an important segment of the nation. The South is being reborn. Many in other sections are seeing in the South a great protential that can inaugurate a new era. A hundred years ago Horace Greeley said, 'Go West, young man, go West.' Today he would say, 'Go South, young man, go South.' Today no one who knows the facts would doubt that the South has become the nation's greatest frontier. The South has played an important part in the nation's history . . ."

John Harris, the Right-hand Man

Mr. Self's right-hand man and close friend is John B. Harris, who is vice-president and general manager of the mills and chairman of the board of the selling organization in New York. He started his career as an office boy at Pelzel Mills when he was a boy of 12. He came to Greenwood Mills in 1913, not long after Mr. Self became president, as overseer of spinning. He has been vice-president of the organization for the last 30 years, and is a former president of the South Carolina Textile Manufacturers Association.

Five years ago Mr. Self presented his close associate with a pin denoting membership in the organization's Quarter Century Club, and expressed his devotion to the man who has worked so closely with him in the formulation and execution of policies and plans of Greenwood Mills in these words: "We've been on the firing line together for about 35 years, and you have been a good soldier. We've gotten along as two brothers. I hope we'll be together a long time yet."

John B. Harris

J. C. Self Jr.

J. B. Harris Jr.

Now the sons of these men, J. C. Self Jr. and J. B. Harris Jr., are officials of the firm and are following in the footsteps of their fathers. J. C. Self Jr. is a graduate of The Citdel, went into the Army in 1941 and served with the coast artillery until 1946, when he came to Greenwood to pitch in and learn the textile business. John B. Harris Jr., a graduate of Clemson College and the Harvard Business School, also joined the organization in 1946, after serving several years with the Army Quartermaster Corps.

L. B. Adams, secretary, has been with the company since 1922 and has held his present position since 1924. The general superintendent of the mills is J. F. Chalmers, another old-timer who joined the organization a quarter-century ago. Like Mr. Harris, he began his textile career as a boy of 12. Marvin R. Cross, a former executive vice-president of Southeastern Cottons who has spent his entire business life in the Worth Street market, is president of the selling organization, Greenwood Mills Inc.

At the age of 76—Mr. Self looks much younger—the head man of Greenwood Mills continues to have a youthful enthusiasm about the mills and everything connected with them. He spends as much time in the office as anyone else in the organization. Sometimes described as the wealthiest man in South Carolina, Mr. Self says that "I learned a long time ago you can't take it with you, and I don't think much of a man who makes money in a community and forgets all about it.

Frequently he gets in his car and drives around the plants and villages and the numerous sidelines or enterprises connected with them. Few things escape his notice. For instance, if a housewife complains that a kitchen cabinet should be more conveniently placed, he'll see to it that the change is made immediately. He is not a textile manufacturer who subscribes to the belief that the textile mill village has outlived its usefulness and his mill communities are the showplaces of the textile industry. One, for instance, has a 37-bell carillon from the Netherlands. Free pick-up-and-delivery laundry service is provided for all employees by the mill's laundry and everybody uses it.

The company has its own tremendous construction department. The company has built any number of nice homes, each on several acres of land, and sold them on easy terms to its employees on cost. As the result, in addition to the model mill village, the countryside around Greenwood is dotted with neat, modern little homes with enough acreage to have a garden and chicken yard. The company has also built fine churches and probably some of the most modern school buildings in South Carolina, donated to the county for operation.

While countless honors have come to Greenwood's "Colonel of Industry," and he appreciates them all, probably one of his greatest satisfactions is to overhear a long-time employee refer to him as "Bub," the name by which he was known in the early days. It makes him think of the early days when every step was a struggle and he couldn't get married until he was 38 years old because he didn't have enough money until then. In 1915 he married Laura Mathews, daughter of Simeon Mathews, his first employer in the general store in the little Kirksey community.

The Jim Self story—or the Greenwood story—crystallizes what is meant when one refers to the principles of the system of free enterprise in action. It is the result of the giving of free play to all the forces of the economic system upon which America was founded, combined with the full acceptance of moral and social responsibilities. This theme, in fact, was dwelt upon at length by Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute, who made the principal address at the "Man of the South" banquet for Mr. Self.

"Perhaps the most important aspect of the Greenwood story is that it tells us plainly how our American system functions at its best," said Mr. Jackson. "As we think about this, it's well worth pausing to consider how the story might have unfolded under different circumstances. Think of its beginning, back in 1908, when Jim Self was only 32 years old and working as a cashier of the Bank of Greenwood. Then the plant of Greenwood Mills was small and run down. . . . The mill actually owed more than it was worth. . . . Jim's first move was to install some modern machinery and automatic looms—the first step in what has since been a story of unceasing modernization, of plowing back earnings, and building constantly for the future.

"Now suppose Jim Self and his associates had tried to do what they did with that little mill under the staggering, stifling burden of present-day taxation. How much incentive would there have been for him to dedicate his life to the task of building a better business, better jobs and a better community? And even if he did have the incentive and courage, what chance would he have had to raise the funds and reinvest so as to create the magnificent enterprise that is Greenwood's pride today. Here, all around us, we have a perfect example of the capacity of industry to grow and create rich dividends—both material and human—within the framework of the economic system established by America's founders. But somewhere along the line the increasing draining off of earnings, at the rate present taxes are siphoning away the resources of companies and individuals alike, must eventually halt progress of the type you have seen here in Greenwood.

"No one can dare be complacent about this situation. Lavish spending must stop, and taxation must be reduced, at all levels of national, state and local government. When we think of what heavy taxation might have done to Greenwood during the early years of its development, we are talking about something that strikes at the very foundation of America's economic system. The core of our strength, the key to the Greenwood story and to the story of America itself, is the freedom men like Jim Self had to use their earnings and to command their resources, so that industry could grow, expand and forge ahead."

Opening, Picking, Carding & Spinning

THE MILL OF TODAY

By ROBERT Z. WALKER

Part 39 – The Traveler Must Fit

THE selection of a specific circle for a given yarn is difficult and usually must be determined by a certain amount of experimentation. The practical way to select a traveler is to ask a traveler representative who is a specialist and an expert in this field. There are two divergent tendencies of spinners which are displayed in selecting traveler circles. The spinner who is interested mainly in production will generally select a traveler having a wide circle because the traveler is easier to place on the ring. Also because slubs or thick places in the yarn are able to pass more easily through the traveler there will be less ends down from this cause. On the other hand, the quality-minded spinner will attempt to use a traveler having a very small circle and, in effect, is trying to use the traveler as a slub-catcher.

To decrease ring wear and to prevent backtracking which will groove the ring, the circle should be no larger than necessary to fit the flange of the ring and to provide clearance for the yarn. In determining the proper traveler to use it must be remembered that as the circle is reduced the flange of the traveler will be relatively wider and as a consequence the horns will be shorter. The length of the horn is important and it is advisable, as a general rule, to choose a traveler with the shortest horns that will keep it on the ring. Horns which are longer than necessary extend unduly toward the web of the ring and merely increase the possibility of contact and wear. Another point which should be borne in mind is that the taper of the underside of the flange of the ring will vary from one make of ring to another. Where there is a minimum amount of taper, or where there is a right angle between the flange of the ring and the web, it is advisable to decrease the height of the traveler when choosing a smaller circle. On the other hand, if there is considerable taper at this point it is advisable to decrease the width to reduce the circle. The use of an abnormally small circle will create

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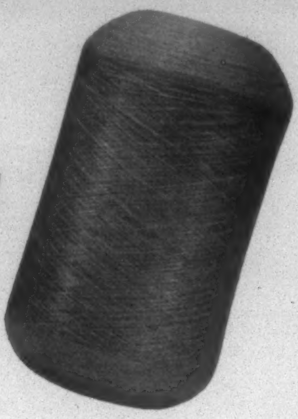

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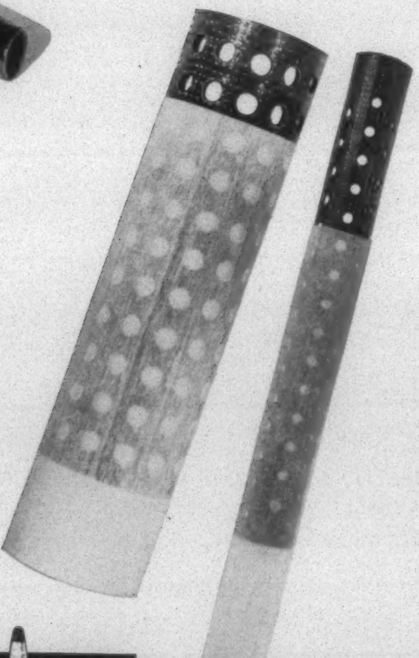

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ring wear almost as much as would the use of a traveler with too large a circle.

In this case the wear will be on the inside of the flange in the form of a wavy pattern, whereas a traveler with an excessively large circle will create wear on the outside flange. If the circle of the traveler is too small the tension or pull of the yarn will bring both the inside and outside horns up under both flanges of the ring. Wear will be observed on both of the flanges but will be concentrated on the inner flange because of the centrifugal force. It is under these conditions that the wavy pattern on the inside will be seen. In addition, it is difficult to place small circle travelers on the ring and a large proportion of travelers will be broken in the process. This could be counteracted by reducing the temper of the traveler, but of course the life of the traveler would be proportionately shorter.

Having selected a specific circle or style of traveler, the next major point is to determine the correct weight of that traveler for a given yarn. Travelers must be selected to fit the ring flange. In the spinning ring normally only No 0, No. 1 or No. 2 flanges are used. The No. 0 flange is 3/32 of an inch in width, the No. 1 is one-eighth of an inch wide and the No. 2 flange is 5/32 of an inch wide. The weight of the traveler is selected in order to give the proper tension to the yarn. This weight must be balanced to suit both yarn size and spindle speed. If the weight is too light the tension will also be reduced and as a result the bobbin will be soft and apt to slough. Another effect of using a light traveler is that there will be excessive ballooning and a deterioration in yarn strength and quality caused by the whipping of the yarn against separators. On the other hand, a traveler which is too heavy will cause excessive ends down and a resultant loss in production. The excessive strain upon the yarn will break the strand whenever a relatively weak place appears on the yarn.

To the practical mill man the most important consideration of travelers is the relation of the traveler to the ring size and spindle speed, insofar as the ultimate surface speed of the traveler itself is concerned. Generally speaking, the traveler lag is not considered in determining traveler speeds. The traveler speed is the r.p.m. of the spindle times the circumference of the ring (diameter x pi) divided by 12, to equal the feet per minute, or surface speed of the traveler. As stated previously, the old rule of thumb was that a traveler should not exceed a speed of 5,200 feet per minute. The spindle speed for a specific condition will vary considerably, in some cases being higher and in others lower than this basic rule. These variations are dependent upon such conditions as the traverse, the strength of the yarn as determined by count, amount of twist and length of staple, by the condition of the ring, and by the shape of the traveler itself. The major factor is again the tension which is exerted on the yarn. This tension varies many times during the entire cycle of building a bobbin. The tension will be greater at the top of the traverse than at the botton due to the sharp angle between the thread guide and the traveler itself. The tension also varies according to the diameter of the bobbin, being greater on the bare bobbin and decreasing as the bobbin builds up. The traveler, itself, increases speed as the bobbin builds up in diameter.

It is desirable to maintain the highest possible spindle speed and, of course, traveler speed, because of the increase in production. This is the ultimate objective of any spinner. The tension on the yarn exerted by the traveler is of paramount importance and for this reason the development of round point travelers and tapered bobbins is significant. The tension is at is maximum at the beginning of the doff as the angle between the bobbin and the traveler is greatest. The tension is also high when the frame is started up as the yarn must pull the traveler around until it attains its operating speed. The round point is easier to set in motion as it will roll on the point until it picks up speed. The initial tension is therefore absorbed and the impact of first strain is reduced. This is the main reason why round point travelers are used on fine yarns because during normal operations the point of the traveler is of small effect.

The relation of the spinning ring diameter to the bobbin diameter is a critical point at all times. To illustrate this relation, refer to the drawing included in Part 38 (TEXTILE BULLETIN, March 1953, Page 76), which consists essentially of two concentric circles representing the diameter of the ring (a) and the diameter of the bobbin (b). A line (c) is drawn to indicate the angle of the yarn as it passes from the traveler to the bobbin. The position of line (c) is determined by drawing a straight line (d) through the center of the circles and by drawing another line (e) which is at right angles to line (d) and tangent to the larger circle representing the ring. (C), or the yarn, passes from the point of intersection of the two straight lines, *c* and *f*. The angle (x), which is the angle of pull, is the critical measurement used in determing the degree of yarn tension and traveler drag.

This angle may be arrived at by using the trigonometric relation existing between the diameter of the two circles, in this case the diameter of the bobbin, and of the ring. The sine of the angle of pull is found by dividing the diameter of the bobbin, the smaller circle, by the diameter of the ring, which is the larger circle. By using a table of trigonometric figures the angle of yarn pull is quickly obtained. As an example, if the bobbing diameter is .875 of an inch and the ring diameter is 1.75 of an inch, then .875 divided by 1.75 equals .50. By referring to the tables it will be found that a 30° angle has a sine of .50.

Although many mathematical calculations have been carried out in conjunction with a multitude of tests and experiments, mathematics alone has not provided an answer to the question, "What determines the optimum angle between ring and bobbin under definite yarn conditions?" The solution is to find the angle at which the effect of yarn tension and traveler drag is not excessive for the strength of the yarn. The basic principle is that the angle will become more acute, for a given ring size, as the bobbin diameter is decreased; and yarn tension and traveler drag increase in proportion to the acuteness of this angle. It follows that this angle should be made more obtuse as yarn strength is reduced and speed increased.

However, directly opposing the use of a large bobbin to create an obtuse angle at the start of the doff, is the fact that the larger bobbin reduces the yarn capacity. If carried to an extreme the sacrifice in bobbin capacity would be too costly, as more frequent doffing would overweigh the disadvantage of fewer ends down and better running work at the beginning of the doff. As a practical matter, limits have been established which indicate that when the

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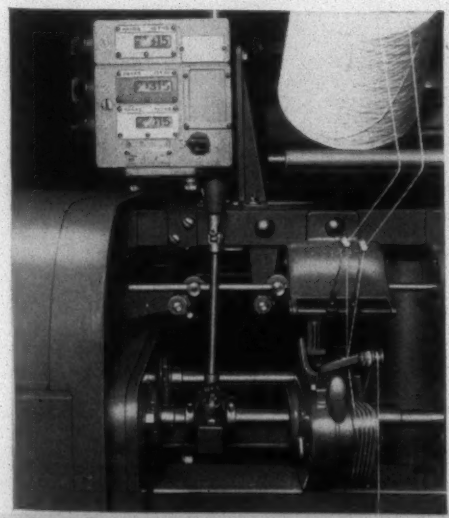

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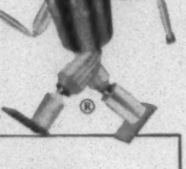

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Winding and Twisting Machinery for Natural and Synthetic Yarns angle of yarn pull is less than 21° there will be a definite increase in starting troubles. At the other extreme an angle of 27° or over imposes only a slight pull on the yarn. At this angle the bobbin must be of such size that there is a definite loss of yarn capacity. In general, the angle should range between 23° and 26°, with the selecting tending toward the more acute angle if yarn strength is high and the rings are in good condition. There are some advocates of the theory that the angle may range up to a maximum of 30°. This practice is based upon the fact that operating conditions are significantly improved at these wide angles and the sacrifice in bobbin capacity is partially compensated for by using heavier travelers which form a package of higher density, allowing more yarn to be put on the bobbin. Experience has shown that 27° is a safe angle to use for the spinning of fine yarn, while 23°, or in some cases as low as 21°, is good for coarser, stronger yarns.

If there are numerous ends down or other difficulties in starting a new doff the remedy may be to adopt a bobbin having a diameter of 1/16 of an inch or one-eighth of an inch. Often it will be found that the loss of yarn capacity caused by using an empty bobbin increased 1/16 of an inch in diameter over bobbins previously used will be more than offset by increasing the length of the traverse before the taper is begun. In other words, there will be a loss of capacity as the diameter of the bobbin is greater, so that less yarn may be wound per cross-section, but the taper will begin closer to the ends of the bobbins, maintaining the same angle of taper, and therefore more yarn will be added at these points.

Before leaving this discussion of bobbin diameter and traveler selection it should be remembered that the greatest strain on the yarn created by the traveler is at the moment of starting a new doff. At this time the bobbin is empty and the angle of yarn pull is most acute so that the tension will be at a maximum. In addition, the ring is at the lower part of the traverse, and exerts the greater strain upon the yarn passing from the rolls and bobbin. Third, the yarn must pull the traveler into motion. This creates two causes of extreme tension as, first, the inertia of the traveler must be overcome and secondly, the traveler will drag on the ring until it reaches its operating speed and floats into the proper position. These are the basic reasons for designing bobbins having a cone at the bottom.

The most common question which is asked is to determine the proper traveler speed for a given set of conditions. The question of proper speed has been discussed with reference to ring size and spindle speeds. However, it would be well to point out several factors regarding the selection of travelers as affected by the speed at which travelers will be operated. As spindle speeds increase lighter travelers should be used because all of the tensions and forces which are exerted upon the yarn by the traveler and also by the bobbin on the yarn are increased in relation to speed. As speeds exceed the old established maximum of 5,200 feet per minute there is a definite tendency for efficiency and traveler life to be reduced. Excessive speeds will burn up travelers and will also ruin the rings. A good point to remember is that when travelers turn a straw color they are indicating burning. When the color changes from brown to purple the travelers have lost their life and temper, becoming soft. A soft traveler will deposit soft steel on the hardened ring, causing a rough surface which will impair the efficiency of that ring from then on.

One point which is often neglected in maintaining proper performance of rings and travelers is the lack of concern over condition of the traveler cleaner. Often excessive ends down and the production of uneven yarn, attributed to any number of other factors, is caused by the poor adjustment or lack of use of the simple traveler cleaner. The traveler cleaner must be set to the correct distance from the ring. This cleaner should remove the deposits of lint from the traveler. However, if too close there is a danger that the traveler will strike the cleaner, causing the traveler to set up a vibrating action which will damage the surface of the ring. On the other hand, the cleaner which is set too wide will allow fly to accumulate. The lint accumulation on the traveler increases the total weight of the traveler and thereby negates all of the care and effort taken in selecting the proper traveler weight. In addition, the lint builds up on the forward edge of the traveler and increases wind resistance so that the traveler is thrown out of balance. As the deposit of lint on the travelers varies there will be uneven ring wear and, more important, uneven tension on the yarn.

A general rule is that traveler cleaners should be set approximately 4/1,000 of an inch from the outer surface of the traveler when it is in motion. The traveler cleaner is a simple pin, in most cases, which will do its work well. If these traveler cleaners are broken off, bent over or set too far away to be of any use, there will be a definite deterioration in operating efficiency and yarn quality.

Carding And Spinning Discussion, S.T.A. Eastern Carolina Division

THE Spring meeting of the Eastern Carolina Division of the Southern Textile Association was held March 28 at the North Carolina State College School of Textiles, Raleigh, with the program featuring a series of prepared questions on mill operations and responses from the floor. An abstract of the carding and spinning discussion follows.

Chairman S. G. Riley: The first question is: "What have you done to reduce neps?" Under that are the two headings of (a) fast licker-in speed, and (b) grinding and setting cycle. Has anyone here tried fast licker-in speed?

Mr. A: We tried it some time back but could not get up to the 800 licker-in speed. We could not do that without putting on a motor to drive it. On the first few cards we put it in the work looked good; the next did not look so good, so we backed off from it. As I recall, the settings we changed were mainly those to control the waste. We did not go down to the .007; that sounds awfully close.

Mr. B: The first cards I tried it on looked very good, but the next ones did not look so good. I think maybe that was due to some carelessness in setting. The most critical points, I found out, are the back setting and the doffer-to-cylinder setting. I do not understand why the doffer-to-cylinder setting is so critical, but I can see why the licker-in setting is critical. You have to have air conditioning to get the best results. We did not go down to .007, either. There is too much vibration for us to do that.

There is one thing I might mention. We set up a card and got it running, and the white cotton that came out was pitiful. But that did not actually come out between the licker-in screen bars; it came out at other places because of the way the screen is built. We did not get 25 pounds an hour; we were getting ten. The licker-in speed, however, is a very critical thing; and this business of reaching 800 is not essential. I would say that as long as you go up to 650 or 700 you get just as good results. I had the misfortune of getting one too fast and could not figure out for a time what was wrong with it, but the licker-in was stripping the cylinder. If you attend to those particular things I would not worry about the flat setting.

John F. Bogdan, North Carolina State College School of Textiles, Raleigh: The closer you get to 800, I think, the better it is. The change is more dramatic, I think, between 600 and 800 than it is between 400 and 600.

Chairman Riley: This fast licker-in speed is interesting to me. Some years ago I had an old New England carder. He told me that the way they got such good results up there was that they ran their licker-in at 600 all the time. They made fine combed yarn, 80s. He did not know why the fast licker-in speed gave such good results, but now we are finding that out. Is there anybody here who can raise the licker-in speed to 700?

Mr. C: We have gone to 700 on a solid floor.

Mr. D: We have a concrete foundation, and we are running 1 1/32-inch cotton. We increased our production about 33 per cent. As to our licker-in speed, we ran that up to 760 r.p.m. The licker-in to the screen, we set that on .017 front and back and to the bars all the way around. The licker-in to the cylinder is set on .007. We were so well pleased with the first three cards that we now have it on seven, and all of these cards seem to be doing very good work. We were using plain bearings, but now we have ball bearings on our licker-in. Of course, we think we could have gotten by with plain bearings, but the savings in there just in oil alone are enough to pay for the ball bearings, and the ball bearings work much better.

Mr. B: I can not tell you percentage-wise, but the nep count and waste is about the same.

Mr. D: We found the breaking strength about the same. We could not tell any difference.

Chairman Riley: Mr. Bogdan, didn't you find the breaking strength a little lower with higher licker-in speed?

Mr. Bogdan: Yes, but we found the improvement in other ways made up for that.

Mr. E: I should like to ask one question. In talking about reducing the neps are we talking about changing the licker-in speed only, or are you talking about the relation of the licker-in speed to other things and changing the settings at the same time?

Chairman Riley: Well, there are other settings you can change. You may not be able to change your flat setting, because your flats may be as close as you want to get them. But you may have to change some other settings to get the best results.

Mr. E: The question is, if you change the other settings, will you get as good results?

Mr. B: If I understand the question correctly, you want to know if changing the settings alone will do it. It that right? I believe if you had to do one or the other you might change those settings.

Mr. Bogdan: The setting is critical, yes. The cylinder-to-doffer setting, as Mr. B pointed out, is one of the things we try to stress. The closer you get the doffer to the cylinder the better job you do of clearing the cylinder and preventing it from loading excessivly. It is that loading of the cylinder, of course, that gives you bad work. If it gets too bad you can strip. You can increase the stripping cycle and keep it clear and keep the card producing good work.

Now, whether the licker-in speed alone is more important than the setting alone I can not answer. We have to consider all these things together. In the experiments where we increased the licker-in speed, in the majority of cases we found a big improvement with the high speed. If you have a cotton that neps too much you may not get as much improvement.

New Officers, Eastern Carolina S.T.A.

At the conclusion of the Spring meeting of the S.T.A. Eastern Carolina Division, J. P. Hughes (superintendent of the Eno Plant of Cone Mills Corp., Hillsboro, N. C.) was nominated and elected chairman to succeed S. G. Riley Jr. (superintendent of Pilot Mills, Raleigh), who had served for the previous year. A. M. Moore (superintendent of Plant No. 6, Erwin Mills Inc., Durham), was named vice-chairman of the division, and A. C. Phillips (superintendent of Edenton Cotton Mills) was elected secretary. New members of the division's executive committee are J. B. Hutchinson of Patterson Mills Co., Roanoke Rapids, N. C., and W. A. Rhinehardt of Golden Belt Mfg. Co., Durham.

Chairman Riley: Haven't a lot of mills gone to a high licker-in speed and found it quite successful and left the flat setting as it was before, or certainly no closer than .009 or .010?

Mr. Bogdan: Yes. Of course, the closer you can come to it, the better it is.

Chairman Riley: It is a foregone conclusion that the closer you set the flats to the cylinder, regardless of the licker-in speed, the better job you are going to do.

Mr. C: It might be wise to consider whether the foundation is solid if you are planning to get down to seven.

Chairman Riley: Let's go on to the next question. That is still under the same topic of reduction or control of neps, and the subheading is "grinding and setting cycle." The questions under that are: (1) "How often do you grind the card?"; (2) "How often do you set the cards?"; and (3) "Do you set the card after each grinding?"

Mr. F: At our mill we have a system of setting and grinding by shifts. We grind six cards on the first shift, six on the second, and four cards on the third. We grind a card around every 152 hours. Then we set three cards on the first shift and three on the second. We have been on that system about two years now. It is the best thing we have found.

Chairman Riley: He said he sets his card every other time he grinds it; that is what it amounts to. I understand that you have a different man from the grinder to set the cards.

Mr. F: We have five grinders, and we put three to grinding. The first man goes on in the morning and grinds six cards, and the other man on the first shift sets three cards. Then the grinder on the second shift grinds six cards, and the man on that shift who does the setting sets three. The third-shift man grinds four cards. The grinder starts at one end and goes through. The same grinder does not grind the same card every time. He goes from one on through.

Mr. A: In grinding a card it takes an awfully long time to grind off many thousandths of an inch. If you set a card correctly and tighten all the lock nuts good and tight, that setting we feel is not going to move. I might add that we grind 16 cards every 24 hours and every 24 hours we set only six, so there is quite a difference in the grinding cycle and the setting cycle. We have not taken nep counts on it because neps are not too much of a problem to us in the type of goods we are on. But the neps have decreased considerably since we have been on it, and we are very happy with it and do not think we would be willing to go back to the average way without a struggle.

Chairman Riley: The next question is "What experience have you had on new or high-speed drawing? (a) Give type of rolls; (b) weight of sliver; (c) speed in feet per minute; (d) variation."

Mr. D: In our mill we have one high-speed drawing running as a sample; 50-grain sliver at the back; eight ends up; delivering 42-grain sliver at the front; running 200 feet per minute. All the rolls are the same diameter, so that they are interchangeable, and there has been no trouble in respect to bearings picking up lint. The evenness is averaging around 2.5. There are very few places

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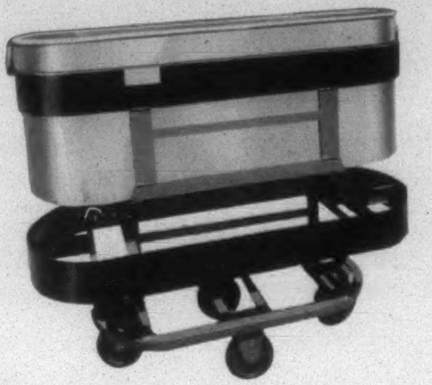

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you have to oil or grease, so that cuts down on maintenance. It has been running several months, and we have had no trouble whatsoever. Drawing of this type would probably pay for itself in six months, by decreasing production costs through the elimination of operators. With this new drawing we now get the same production that we presently get on four old drawings and two lap winders. It happens that because of the way our mill is situated our carding is done in the basement, as I explained before, and our breaker drawings are on the second floor. So it was necessary to have lap winders downstairs. By putting in this high-speed drawing we eliminate the lap winders there. It is necessary to have drawing and lap winders on the same floor, which we plan to do; and that will eliminate one man on each shift, which will about pay for the drawing in six months.

Chairman Riley: Give your experience on non-oiled or non-friction type top rolls on (a) drawing and (b) speeders.

Mr. A: We have three of these drawings that Mr. D was talking about, and we have had a little trouble with lint seeping in around the bearing. The suppliers told us they would replace those. We have been very happy with ours, though we have not been able to get our percentage of evenness down with Mr. D's yet. It is 8.9, I believe.

Mr. G: There are two different measures for measuring evenness. One is the linear integrator, and the other method commonly used is the maximum-minimum method. The method we are using at the present time is giving us about the most even sliver of any mill in our organization. We are also running drawing on low speed at another mill which is just about as even as we are getting on high-speed drawing. The factor there, I think, is that with the actual job load in the other mill and the space we have for drawing it will be possible to run low-speed drawing.

Chairman Riley: I am to ask George Archer to explain the difference between the linear integrator and the maximum-minimum method.

George E. Archer, regional manager, Pneumafil Corp., Charlotte, N. C.: With the integrator you make your chart with all your measurements on there and make your curve. If you draw a line through the middle the areas can be accurately measured by a little instrument, a little measuring device. That is the way they have been doing it in Europe for years. You measure the number of square inches and measure the base line; then divide the total area into the area made by that curve, and that is the average per cent variation. Now, as to the figure you get from taking your chart; you take the highest point and the lowest point corresponding to a yard of material and you average them, and the difference between the highest and the lowest is the average, say for about ten yards; and that unit is the average maximum variation per yard.

There is no real correlation between the two, because they are two different units. Each one has its peculiar useful application. Most people seem to agree that the integrator is the more useful because it takes into account not only height of a variation but also the width of the variation. You can have one great big high point or one very low point, or a big hump in a yard of material, and that gives a large variation. But the integrator takes account of the whole. If you have a variation of two on the integrator and of ten on the average maximum variation they are about equal. This is not an absolutely stable relationship. The type of variation enters in. You have two different things.

Chairman Riley: The next question is: "What experience have you had with the Pneumastop electric-eye stop motion and waste collector?"

Mr. Archer: Frankly, I do not remember anybody in this Eastern Carolina territory who has bought some. While we have one complete spinning room equipped and another very large one (with about 60 units) which will go in within the next month or so, yet all the equipment that is now in the field is in the process of being revamped and brought up to date, because it was placed there with the idea that we would need the help of the mill in experimenting and improvement. We have now at least one unit or maybe two installed that have come up to our expectation and are doing the job we expected it to do, and the others in the field will shortly be brought up to that. So far as labor saving is concerned, the guesses run all the way up to 25 per cent. That is not all purely labor. From my experience in the mills in the past, I do not believe anyone has ever met an assignment without holding back something for quality's sake. That sometimes runs up to 50 per cent. I know I have done it. I know if we load a man beyond what he can do there is always a fear in the back of our minds as to what kind of quality we are going to get out of it. We think: "If I back off 25 per cent will not the quality be improved?" But this is a case where you can forget all about the quality angle, because it is being watched for you. If an end is down, five seconds later the frame is stopped.

We made an analysis with the help of a consultant and were as careful as possible to put in all the elements that go to make up a job, to see what we would come out with, to see if the various mills have been kidding themselves. We took six samples. On the first job, with a bobbin size of 12x6, making .65 hank roving, five slubbers per operator, the percentages of the total working time of 480 minutes consumed in the various operations were as follows: doffing, 37.8 per cent; creeling, 24.2 per cent; piecings and stops, 17.3 per cent. The total of the scheduled time was 79.3 per cent, leaving 20.7 per cent of the time unscheduled, for cleaning and rest. I do not know of any job higher than that in scheduled working time, and not many jobs as high. That is pretty tough drawing. On that job, 20.7 per cent of the time is reserved for cleaning and rest. You notice that cleaning goes into that. Ordinarily the cleaning is pretty heavy on a big job. We do not know what this is going to do for the cleaning, because we know it is going to make the necessity of cleaning flyers much rarer than it is now. The instant an end comes down, Pneumastop grabs the end and then stops it off. You notice I say it grabs the end first, so there is never any flipping over the end on the flyer.

The next job is a 2.00 hank roving, with a bobbin size of 10x5 inches, seven slubbers to the operator. On that job the doffing took 31.2 per cent of the total working time, creeling 11.2 per cent, and piecings and stops 32.8 per cent, making a total scheduled time of 75.2 per cent. That is 24.8 per cent unscheduled time for cleaning and rest.

The next is 3.00 hank roving, bobbin size 9x4½, eight slubbers per operator, with 22.1 per cent of the working time reserved for cleaning and rest. On that job the study showed that doffing took 28.5 per cent of the time, creeling 7.7 per cent, and piecing and stops 41.7 per cent.

Chairman Riley: How do you prevent lumps from getting under long-draft aprons? Has anyone found a way to prevent that?

Mr. E: I do not say we are doing anything to prevent the lumps from getting under there, but we have tried something to cut down the accumulation as much as possible. What we did was, more or less, to work with the people that built the aprons. We found in many cases we just took the word of the builder or supplier of the aprons and just put on the aprons they recommended. We found we had a lot of space there between the creel and the side of the apron, and that let the lumps get in there. So what we did was that we took it up with the supplier of the aprons and asked him to build our aprons just as wide as they could. That helped us considerably. We found that we had as much as 3/32-inch clearance with some of our aprons, and now it is 1/32-inch. That helped us considerably. Also, different types of aprons have come out now, with certain material on the inside and certain material on the outside, which gives a white color on the inside and black outside. We find that the different types of material out of which aprons are made has something to do with controlling that, also.

Mr. C: I should like to know which apron is easier to clean, the Casablanca system or the Roth system. With the double apron you have all those saddles, and you have to keep them clean. I should like to know which is easier to keep clean, the apron with all those saddles or just the old Casablanca short apron. There may be a difference due to the different types of material out of which the aprons are constructed. You can use synthetics better on the top apron than on the bottom, because it is easier to replace them.

Chairman Riley: I think you will find that a lot of people are using synthetics both on the bottom and the top. Of course, you have to use some leather replacements.

Mr. I: This apron problem is quite important. Mr. E has mentioned one thing that has happened; that is, the apron not filling up the leather tray. Then there will be an accumulation there. I am glad he mentioned that, because I think if you remedy that by putting in wider aprons it will help. Another thing; if you look at the stuff that accumulates in there, it is a little soft ball of neps that did not have any business in there to start with. It is

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supposed to be taken out before the stock gets there. It is not long enough; it is just a ball of foreign matter that did not have any business in there in the first place. Why buy short cotton, anyhow? Why do the farmers grow it?

Chairman Riley: I do not believe you can buy cotton without a lot of that short stuff in it. Let me call on a combed yarn mill here. Theoretically, they take that stuff out. How about it, Mr. D?

Mr. D: I think as long as we have spinning we shall have a problem of lumps under aprons. Of course, it all goes back to a cleaning schedule to get them out. I think the trouble Mr. I was having, if I remember correctly, was due to the fact that we had the bad luck of getting in some bad cotton. We were running some California long-staple cotton, and we had the experience of getting some bad cotton in that California long-staple cotton that we were trying. We had more trouble with this long-staple cotton than with the regular mix Memphis cotton.

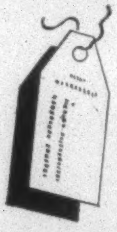
Getting back to the subject of aprons, we experienced the same trouble that the gentlemen were talking about a while ago. In trying these new synthetic aprons we found they were a little bit narrow, and went back and widened them out. We had quite a bit of trouble with the apron that is white on the inside; it would slip on the bottom. Of course, our frames are pretty old; and we had fluted middle rolls on the bottom. The newer rolls, of course, are knurled. The coefficient of friction is greater with the fluted roll than the knurled. They were having the same trouble in one mill, and the manufacturer was encouraged to make a new apron which increased the coefficient of friction. They have still a newer apron, which has a greater coefficient of friction. We have run some of all three of those, and we finally decided we were running the wrong apron and did not have enough weight on the roll at the same time. So we put on more weight and changed the type of apron. Of course, we changed the cradles, too, at the same time; and we are doing a better job.

Chairman Riley: What is your winding speed on the Barber-Colman spooler? Give yarn number, type of wind, and percentage of reties.

Mr. J: We have Barber-Colman spoolers, and we run 40s at 1,200 and 28s at 1,000. I think the winder speed will determine your work load and spindle assignment as much as anything else. We are using the combination wind. Our reties are fairly low. They are less than 25.

Mr. K: We have Barber-Colman spoolers and are running 10s, 16s, 20s, and 30s. The winding speed is 1,235 yards per minute; reties, five per cent. We also have three Barber-Colman warpers, and on them the ends down are 12 ends down in 12,000 yards.

Warp Preparation & Weaving



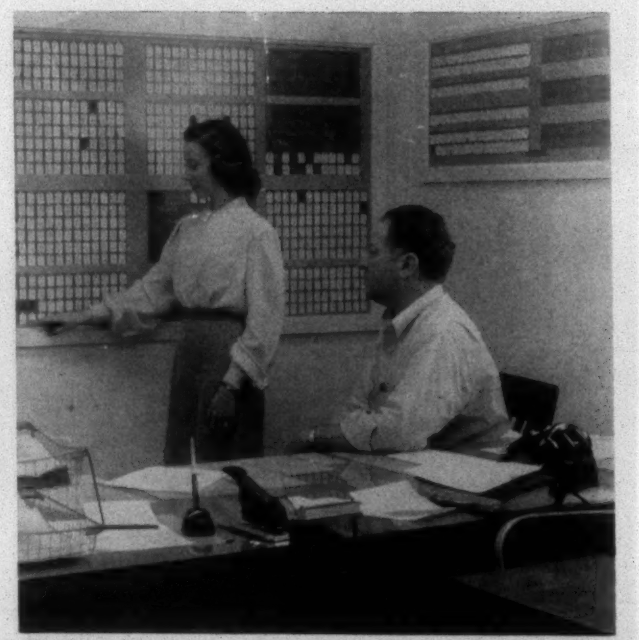
How Mooresville Mills Keeps Track Of What Its 1,810 Looms Are Doing

MOORESVILLE (N. C.) MILLS not long ago instituted an efficient and easy system for keeping immediate tab on each of the mill's 1,810 looms. The system consists of nothing more complicated than several large boards hung in the weave room office, representing the floor plans of all the weave rooms. Small nails are placed on the boards in the same relative position as each of the plant's looms, and on each nail is hung a tag containing the vital information concerning that particular loom.

Most of the tags are white, but when a "rush" pattern is on the loom a yellow tag is used, and when the loom is weaving a sample, a red tag is placed on the board. Four numbers are written on each card. The top number designates the loom number, the second indicates the style being woven, the third is the pattern number, and the fourth indicates to the mill's methods and standards department how much the weaver should be paid for that particular cloth.

The idea for the system was conceived by Henry Spears, superintendent of weaving. He talked the idea over with Glenn Steele and the two of them called in Harold McKnight, assistant maintenance superintendent, who drew the plans and had the boards constructed.

Glenn Steele now has complete charge of the tag check system, but he is assisted in keeping the board up to date by Mrs. Betty Coon, weave room secretary. The ease and



Weave Room Secretary Betty Coon calls out the information from a particular loom tag to Glenn Steele, who is in charge of the Mooresville Mills "tag check" system. Each tag on a board represents one of the mill's looms, and on each tag is written essential facts relative to the construction being woven.

efficiency with which these two maintain control of each of the mill's looms is in sharp contrast to the voluminous and awkward method of listing each loom and what was on it which was used previously. "Now," says Mr. Steele, "we can tell at a glance which looms are running a particular pattern in the weave room.

"This new tag system saves a great deal of time and energy," Mr. Steele continues. "For example, when production or designing calls in and asks for the location of a style, we can tell at a glance where the loom or looms are located. In the old method, the supervisor used to have to make a trip around all his looms twice a week so he could make his loom report. It can be done now right from the boards."

All draw-in instructions and all loom line-up is instituted from the board to conform with the production office schedule. Each day the weave room supervisors check the boards to note any changes in style, to be sure the rush orders receive special attention and to keep an accurate record of every loom in their respective departments.

Fabric Manufacturing Practices Compared During S.T.A. Meeting

THE second half of a meeting held by the Eastern Carolina Division of the Southern Textile Association at Raleigh, N. C., March 28 consisted of a "here's how we do it" forum on slashing and weaving. This discussion (abstracted below) was led, as was the carding and spinning discussion appearing elsewhere in this issue, by Division Chairman S. G. Riley Jr.

Chairman Riley: "What is your experience in slashing wet warps?" The next question is related to that: "Have you used pre-dryers on wet warps?"

Mr. M: I think the only answer to a wet warp is to dry it. In slashing wet warps you have to dry them because in the finishing process, if the size is not taken up evenly, when it goes to the tenter there is variation. So you have to dry them. I think it depends on the type of goods you are using. On upholstery yarn I think you can use your pre-dryer. In some cases, however, you can run it through the size box wet. The number of the yarn is the determining factor, though.

Chairman Riley: I understand some people run up to as high as 40 per cent wet. You have a pre-drying can, I believe.

Mr. M: I do not believe there is any such thing as running a wet warp and getting predetermined results without some kind of drying. When you have from 40 to 60 per cent of moisture left in the yarn when it goes in the size box that water is going to dilute your size. So you cannot have any even sizing of that yarn. Before we put in the pre-dryers, if we did not watch the size box it would eventually run over because of the water that was being put in it by the yarn. Our pre-drying cans are satisfactory. We are getting by with them all right.

Chairman Riley: "What system do you use for creeling and doffing slashers?" I think this has reference to the roll-in type of creels.

Mr. N: We have two creels to each slasher; we have double creels behind the slasher. One goes to the side, and one goes straight back. When you run a set down you have one loaded. Whenever we run a set down we have another creel loaded, ready to go in. It saves the slasher man, I would say, an hour and a half to two hours.

Chairman Riley: "What type of squeeze rolls do you use? Has anybody tried the rubber-covered roll?"

Mr. N: We tried it, but we covered it with a wool banket.

Chairman Riley: I understand that somebody now has a cork-covered roll, instead of a blanket.

Mr. O: I think the rubber under the blanket prolongs the life of the blanket.

Mr. P: We have yarn-covered rolls.

Mr. O: Do you use them because you think you get a better-dressed warp or because you think it is cheaper?

Mr. P: We get a better-dressed warp, and it is also somewhat cheaper. Over the period of a year, broken down per week, it is $7.57 per week, and we think we get excellent results in finishing the warps. It is the Uxbridge high-speed slasher.

Chairman Riley: Have you tried wool blankets with the yarn-covered rolls?

Mr. P: We have not tried that, but we had wool blankets on the old slasher. We get better-dressed yarn with this. We use it over a jute covering. We cover this every 24 hours with two ends of 7½ cotton and one end of wool. We cover the front roll and then flip it to the back, so as always to have the seasoned roll in the front. The newly-covered roll will always be in the back.

Mr. O: May I ask why you use the cotton in combination with the wool?

Mr. P: The cotton makes it more firm. We tried the wool alone, and the wool makes the rolls spongy.

Mr. Q: I should like to ask about the blanket covering. We have the same slasher that he has. When we first bought the slasher we were the first mill that bought it. At a speed of 55 to 60 you cannot put a wool blanket on your rolls.

Mr. O: We have our slashers working at 88 to 90 yards a minute and have no difficulty with wool blankets.

Mr. Q: We have a flange on the side and have to put the blanket in that flange, and it draws right up.

Mr. R: We have run ours at 90, but on combed broadcloth it is better at 65 yards a minute. On coarse numbers you can go up easily to 80 or 90 yards a minute.

Mr. O: Just the reverse is true with us, because heavy yarn is harder to dry.

Chairman Riley: I think we had better go on to the weaving. The first question under that is: "What experience have you had with metallized take-up rolls?" You are asked to give the method of application, the approximate cost, and any trouble or disadvantage you have found.

Mr. P: We have those rolls and have not had a minute's trouble with them. I think our master mechanic can better tell you our experience, because he is in the shop metallizing the rolls. In the weaving room we have not had a minute's trouble. He can give you his experience in metallizing the rolls in the shop.

Mr. S: Well, it costs possibly three dollars to metallize a 43-inch roll. We expect the covering to stay on indefinitely. For metallizing we use alloys as well as stainless.

Mr. P: It lasts better than anything else we have ever had in the weave room. Metallizing holds better than anything else we have used; it stays on.

Question: I should like to ask if you can get a uniform surface on your rolls.

Mr. S: We let the lathe have about four passes at it and get a uniform surface. I might say, too, that you do not have to worry about the sand roll rusting.

Chairman Riley: The next question is "How do you control kinky filling?" And under that heading is another question: "Have you changed the reed to stop kinks?" Does anybody have any way of controlling kinky filling besides the regular old way of conditioning?

Mr. A: We are probably having the same problem they are having. In some of our goods we cannot condition the filling because if we do we get dye streaks. It is just a vicious circle. If their mill has found any way to prevent it I should like to know it.

Chairman Riley: If we run three per dent we get kinky filling; if we change to two per dent we do not. Just why, I cannot tell you.

Mr. P: We run high pick filling—148. Sometimes you can shorten the pick, make it pick easier, and get away from kinking; but we do not like to do too much of that.

Chairman Riley: I know all the weavers have something to say on this last question, or you ought to have: "Explain your system for controlling weaving seconds."

Mr. A: There is a lot in the liaison between the cloth room and the weave room. We borrowed something from one of our neighbors—a little red tag which the inspector uses. If she finds a defect in the cloth she sends a red tag back to the loom that made it. If in the next roll she finds the same defect she sends back two red tags.

Mr. U: Speaking about that, can you get your cloth room to identify seconds in the same language as the weave room? Do you use the same terms?

Mr. A: That is a big problem. I think we are getting closer together on it.

Mr. U: We had some seconds cut out once and put them in a cover, like a notebook cover; then we got the inspectors together and described them in the language we wanted to use—overshot, undershot, jerk-in, and so forth. Then when notice of a defect went back to the weave room the second hand or the loom fixer knew just what to look for.

Suggestions For Weaving 'Dacron' Polyester Yarns

FROM time to time the customer service section of the Du Pont textile fibers department prepares preliminary bulletins giving information about technical problems encountered by mills in fiber processing and reported to Du Pont representatives. Such bulletins are in every sense preliminary, many of them containing "suggestions" for attacking certain problems. They are, of course, subject to change as further work sheds further light on specific fields of inquiry.

One of the most recent of such papers is Preliminary Bulletin CSB-D-4 (Rev. 1), entitled "Suggestions for Weaving Yarns of 'Dacron' Polyester Fiber," which is herewith abstracted for the benefit of our readers.

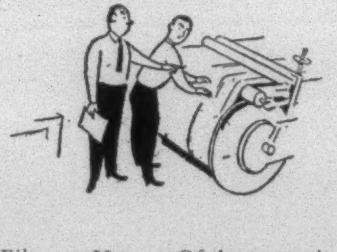
Warping

Yarns of Dacron polyester fiber can be acceptably warped from conventional creels that provide for good end-to-end tension control at low tension levels. All warping methods can be utilized, with cones and various types of spools as either "over-end" or "rolling" supply packages. Warping tensions should be as low as practicable (0.1 gram/denier for continuous filament yarns), but more emphasis should be placed on tension uniformity between warp ends than on lowness of tension. To insure tension uniformity and to guard against yarn damage, creels, warpers, guides, tension devices, stop-motions and beams should be kept clean, smooth and accurately aligned at all times.

The greater resistance to stretching of Dacron yarns will in general reduce the danger of beam crushing from large relaxing compressive forces, as compared with nylon, but careful tests should be conducted to determine the optimum creel, section beam, or loom beam yardage, considering the warp density, beaming tension and types of beams being used.

The moisture regain of Dacron is extremely low (less than one per cent and, as a result, static potential is just as great or greater than with nylon (moisture regain of 4.5 per cent). Relative humidities of 55 to 70 per cent are therefore recommended for warping areas to aid in static control. The use of static eliminators on warpers has been found, as with nylon, to be of great assistance in minimizing the effect of static electricity. Mills using single-end sized yarns in warping should remember that high relative humidities tend to soften size films with resulting "flaking" or shedding. Each mill will have to determine optimum air conditions that will give highest warping efficiency and fabric quality with its specific equipment and sizing conditions.

Yarns of Dacron polyester fiber require a size film mainly to protect the filaments from the extreme abrasion encountered during the weaving operation, thus preventing the formation of floats and "stickers" from loose filaments. Size can be applied to the single ends of yarn, using a roll applicator of some type, or in warp form using a slasher. This discussion will cover only the warp sizing of raw yarns.



Continuous Filament Yarns—Of the many size candidates evaluated on Dacron yarns, Elchem-1273, an alkali-soluble vinyl polymer, has given the best results. The size solution is formed by dissolving the beads of Elchem-1273 in water solutions of alkali, the common solution used being one made up from sodium carbonate (Na_2CO_3). At least 7.2 parts of Na_2CO_3 in water are required to solubilize 100 parts of Elchem-1273. The resulting sodium salt solutions of Elchem-1273 have a pH of approximately 8.0 so that they can be used without danger of corrosion in conventional slashers. Acid materials should not be added to these formulations; acid will precipitate insoluble resins.

Elchem-1273 size has good adhesion to Dacron yarns, and if applied uniformly and in the proper amount, should give little or no size "flaking" during weaving while pro-

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viding excellent protection to the yarn. The formulas given below have been found to be successful for medium sley taffetas of Dacron and should provide a starting point for determining the optimum formula for each mill for its particular fabric construction and weaving conditions.

Size bath composition:

	A	B
Sodium carbonate (soda ash)	4.75 lbs.	4 lbs. 6 oz.
Elchem-1273	66 lbs.	60 lbs.
Elvanol 52-22 (polyvinyl alcohol)	—	4 lbs.
Sulfonated oil*	18-20 lbs.	15 lbs.
Water to make total volume of	100 gallons	100 gallons
Size pick-up	3%	5%

*Acts as penetrant, plasticizer and lubricant. Nopco 1440 or 1550 or Colloid 216 have proven suitable.

The above formulas have about the same cost per hundred-gallon mix. The Elvanol 52-22 polyvinyl alcohol is used in Formula B to give greater size pick-up by increasing the viscosity of the solution.

Slasher conditions for both the above formulas:

Size bath temperature	130 to 150° F.
Drying can temperatures	160, 180, 180, 200, 200, 200° F., cold
Slasher speed	25-35 y.p.m.
Stretch	0% with positive tension

Although the modulus of stretch of Dacron is considerably higher than for nylon, zero stretch with positive tension is suggested to reduce the danger of beam crushing and allow more warp yardage on loom beams. Care should be taken to obtain uniform braking tension between section beams so that the combined warp on the loom beam will not have periodic tight and loose ends.

As with all slasher sizes, kettle and lines should be thoroughly cleaned when changing from one size to another that is chemically different. Many of the textile sizes are incompatible with each other and often form gummy precipitates that clog lines and give poor size films on yarns when contaminated.

The amount of size pick-up (Elchem-1273 plus sulfonated oil) can be determined by subjecting duplicate weighed, conditioned, sized and unsized yarn samples of approximately ten grams to a normal alkali "boil-off" procedure. After weighing the "boiled-off" conditioned samples, size and sulfonated oil pick-up can be calculated as follows: *Approximate percentage of pick-up equals average percentage of weight loss from sized sample minus average percentage of weight loss from unsized sample.* The use of the unsized sample helps to discount the water extractables present in the raw yarn before sizing.

Elchem-1273 can be readily removed by the normal hot soapy scouring solution. It is suggested that fabrics be scoured before being subjected to a heat-treatment, to avoid setting of dirt, oils, or other soiling materials by the high temperatures involved in heat-treating processes.

Singles Staple Yarns—Sufficient experience has not been had to give any specific suggestions for sizing these yarns. It is felt that Formula B, above, should serve as a starting point for mills interested in singles weaving. To prevent excessive size pick-up, about half as much solids should be used in a hundred-gallon mix. The same precautions should be observed with spun yarns as are given for filament yarns in the preceding paragraphs.

Both continuous filament and staple yarns of Dacron polyester fiber have been quilled directly from Du Pont tapered shipping bobbins, from uptwister spools and from cones. While the following pertains mostly to continuous filament yarns, the general ideas can also be applied to staple yarns.

Direct quilling from tubes of zero-twist Dacron continuous filament yarn may be practical if special techniques and care are used, although it seems probable that in most cases, minimum twisting will have to be performed to achieve satisfactory performance. In general, sizing of twisted filling yarns has revealed no particular advantage over unsized yarns, although this procedure may be helpful in weaving zero-twist or extremely low-twist yarns.

When quilling directly from Du Pont shipping bobbins, it is suggested that some type of smooth pirn cap be used to prevent snagging and breaking of filaments of the low twist yarn on rough or nicked pirn heads. To reduce the difficulties resulting from static, antistatic agents are frequently applied by wick on the quiller, in the case of direct pirn-to-quill transfer, or by roll or wick in the redrawing operation before twisting. As an additional aid in controlling static and the resulting ballooning of filaments relative humidities of 55 to 70 per cent are suggested for the quilling area.

Pirn taper barre', a filling band effect resulting from uneven yarn contraction (relaxation) on the tapered pirn, has been found to be less severe with Dacron than with nylon yarns but still may cause defective fabric. Unrestrained contraction (relaxation) of the yarn, such as in a skein for 24 to 48 hours at room conditions, has been found to virtually eliminate this non-uniformity. Low tension redrawing and twisting steps, with resultant contraction on take-up spools, will tend to minimize the barre' effect, but not as completely as with a skein. In general, the degree of freedom of yarn contraction directly determines the degree of relief obtained from pirn taper barre'. Zero-twist tubes without tapers give yarn that is free from this barre' effect.

If yarn has been twist-set or heat-treated in any way, attention should be given to the effects of differences in residual shrinkage of yarn from the outside, middle and inside of the twist-setting package. Quills containing yarn of different residual shrinkage, if woven in succession as filling, will give different finished fabric widths and puckering. If at all possible, it is thus suggested that filling yarns not be twist-set. If high twist levels of particular fabric constructions make twist setting necessary to reduce yarn liveliness, setting should be done on a package in which the yarn is not restrained from contraction, such as skeins or compressible tubes.

In general, it is felt desirable to use the lowest tension that will provide stable quills. Even with the relatively high modulus of stretch of Dacron, quill barre' can result from uneven yarn relaxation on the quill after quilling at excessively high tensions. Our limited experience with Dacron indicates that quilling tensions should be approximately 0.33 grams per denier for continuous filament yarns. As in warping, strong emphasis should be placed on tension uniformity from quill to quill and within a quill to minimize quill junctions resulting from winding tension variations. In addition to tension uniformity it is important to avoid irregular pinching or squeezing of yarns as this may cause bruises or tight picks which result in defects in the finished cloth.

Weaving

Continuous filament and staple yarns of Dacron polyester fiber appear to weave acceptably under the same conditions

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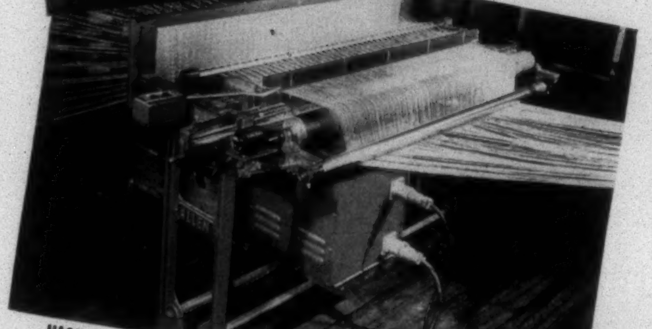
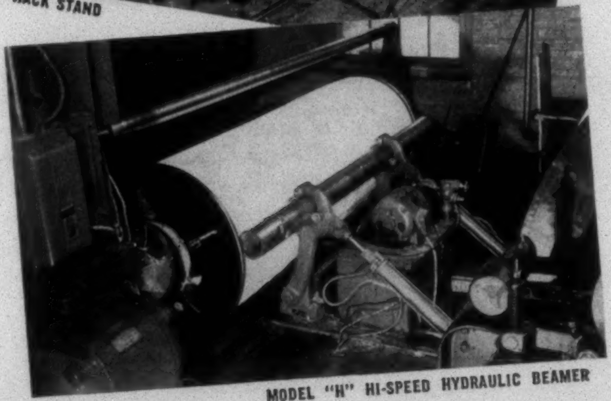


HACK STAND



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as those currently used for nylon and other synthetic yarns, judging from experience acquired to date.

Relative humidities of 55 to 70 per cent in the weave room are suggested as a strong aid in static control, although it must be remembered that high relative humidities also tend to soften size films, with resultant shedding during weaving. Optimum air conditions must be developed by each mill, based on its specific sizing and/or weaving conditions. Static in continuous filament weaving has also been greatly reduced by application of suitable anti-static agents to the filling yarns.

Small bits of waste such as knot clippings should be put into a container rather than dropped indiscriminately onto the loom or floor, since any static condition in the warp or filling yarns will readily attract foreign material with resultant stickers and woven-in waste.

Good weaving results require preparation of clean warps with even yarns, uniform end-to-end tension, and clean, uniform quills. Close attention to accurate loom adjustment and maintenance has been found to be very important in the production of high quality fabric. Reed marks can be reduced in intensity by use of reeds with oval dent wires and by frequent cleaning and dent alignment.

Broken filaments in continuous filament warps and hairiness in staple yarns can often cause serious fabric defects. Because of the high strength of individual Dacron filaments, they can become entangled with adjacent ends, causing floats and stickers without breaking the tangling filaments. Many times these yarn conditions are caused by rough reeds or heddles, excessively high warp tensions, or insufficient size protection.

Alabamans To Discuss Slashing, Weaving

Discussions on slashing and weaving are scheduled for the next meeting of the Alabama Textile Operating Executives, Saturday, May 9, at Auburn, Ala. Harold H. Clark of Avondale Mills, Pell City, in his report as vice-chairman of the group, pinch-hitting for Henry Lanier, general chairman, was enthusiastic about these parleys and the exchange of technical information which stems from them.

Nearly 300 attended each of the operating executives meetings in Auburn last year—one in May and one in November. The former was for supervisory personnel in carding and spinning, the latter for supervisors in the service, mechanical, maintenance, electrical and supply departments.

On April 3, the officers and executive committee of the group met at Alexander City, as guests of Russell Mfg. Co., to select the questions for discussion. At the last session of the operative executives, the practice of distributing a printed summary of answers to questions to all those present was started.

"As part of the program at the last meeting, the group visited the School of Textile Technology at Auburn to see the work the school is doing and certain new machines, including the Gwaltney spinning frame," it was stated. "We have been invited to visit the school again at our next meeting.

"At present, the membership of the group is at a peak, nearly 100, about half being mill members and half associate members.

"We feel our organization is serving a worthwhile purpose and interest is increasing among the superintendents studying the questions sent in for discussion and that each time we get more factual information concerning the problems presented.

"We urge you and your associates in your plants to take an active part in our meetings, and realize their success depends upon your support and co-operation."

Data On Fiber Glass Cloth For Laminates

A large valume of technical date on the physical properties of glass fabric-polyester laminates has been developed in a series of tests undertaken jointly by Libbey-Owens-Ford Glass Co. and eight large weavers of fiber glass cloth for the Wright Air Development Center of the U. S. Air Force at Dayton, Ohio.

The task is estimated to have saved the Air Force at least $70,000 and given it the basis for new technical bulletins, revised specifications, and important fundamental and factual information about the performance of different weaves of glass cloth, weights of fibers, and treatment of the cloth preliminary to lamination. Fiber glass-plastic laminates are being used not only for radomes and other aircraft parts but for body armor, automobile bodies, bathtubs, boats, furniture, fishing rods, toys, and scores of experimental uses.

Don W. Lyon, manager of textile fiber glass sales for Libbey-Owens-Ford, said the work was done at the technical building in Toledo under the direction of Dr. J. D. Ryan, associate director of research. Some equipment from Wright Air Development Center was loaned for use of the scientists in making the voluminous tests.

Large samples of 62 fabrics were submitted for the tests. Taking five samples each of the fabrics, two laminates were made from each of these fabric samplies. The laminates were then put through nine separate physical property measurements which ran the total to 2,232 tests spread over the last three months.

"This was the most comprehensive testing program ever made on fiber glass laminates and the fabrics used in the reinforced plastics industry," said Mr. Lyon. "There has been a great dearth of technical information on these fabrics now extensively used in the fast-growing plastics industry. These data will be of great assistance to design engineers, laminators and the Armed Services."

Complete data were not only released by the L.O.F. laboratories to the Air Force but also to the participating weavers. Companies which submitted sample fabrics for the tests included Bigelow-Sanford Carpet Co. Inc., New York; Coast Mfg. & Supply Co., Livermore, Calif.; Deering, Milliken & Co. Inc., Hess, Goldsmith & Co. Inc., and St. George Textile Corp., all of New York; Soule Mill, New Bedford, Mass.; J. P. Stevens & Co., and United Merchants Industrial Fabrics Corp., both of New York.

Cotton For Carpeting Grows In Importance

The growing importance of cotton to the carpeting industry was underscored recently when the Magee Carpet Co. announced it has started large-scale production of its first full line of cotton carpeting. The new line, called Southerner, produced in nine and 12-foot widths and in 15 colors, is being introduced to department stores and rug retailers through Magee's nationwide distributor organization.

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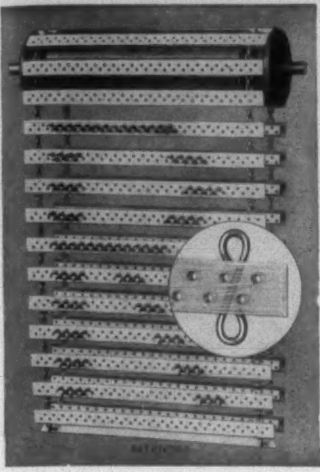

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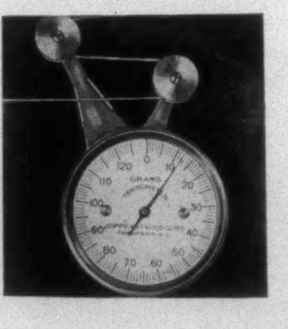

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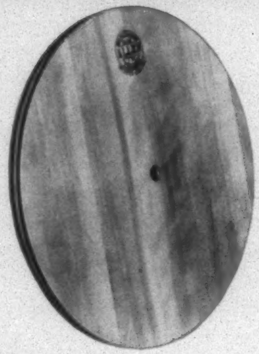

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Maintenance, Engineering & Handling

Pipelines For Compressed Air

By LEO WALTER, Consulting Engineer

ONE of the most important factors of modern piping of compressed air is the application of automatic draining for elimination of water, or of an oil and water mixture from the piping system. Drain cocks are still widely used in existing piping systems, but their efficiency depends on the attention of plant operators, and it is known how unreliable the "human element" sometimes can be. Although it is advisable that air receivers on air conpressors should have "adequate" means for draining accumulated water, proper draining action is often lacking. It is, however, most important in operation to ensure that at all times, irrespective of the operator's goodwill, the air is kept free of liquids in a piping system. To make draining of water automatic is, however, a simple procedure. First, the best thing is to prevent water or lubricating oil getting into the compressed air piping system at all. By draining automatically the compressor coolers or receivers, water and oil can be conveniently eliminated before it enters the piping systems. Fig. 1 illustrates diagrammatically drainage of a larger receiver by means of a float-operated automatic air trap. A point to be watched is that when draining compressed air mains, the air traps should always be as close to the drain point as possible. It is also important that the water should be able to *flow freely* to the drainage point, and traps should always be below the lowest point of a pipeline.

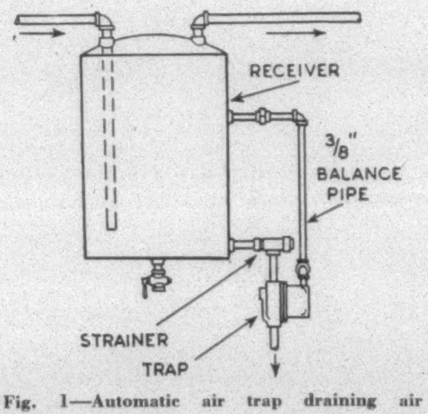


Fig. 1—Automatic air trap draining air receiver.

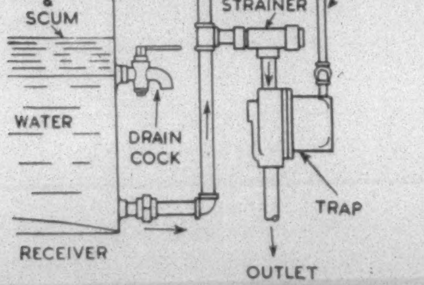
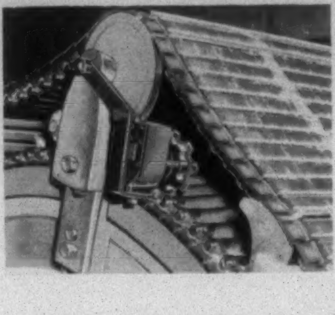


Fig. 2—Drainage of air receiver where oil and scum can accumulate.

If an air trap is fitted at the end of a long connecting pipe, or to the receiving vessel, when the trap has discharged the pipe or vessel will be filled with air. Unlike steam, this air cannot condense and form liquid, so that the valve or the trap would remain closed. As shown in the illustration, Fig. 1, a good way of overcoming this locking of air is to connect a small bore balance pipe from the top of the trap body to the air space above the water level in the main or receiver. The water can then displace the air in the trap body and flow into the latter to be discharged. This installation with a balance pipe between receiver and trap body prevents air locking, i.e., accumulation of air which would block drainage. Fig. 2 illustrates automatic drainage of a receiver where oil and scum accumulate on the water surface. The trap is again fitted with a balance pipe and the drain pipe is taken off at approximate liquid level, as shown. A separate drain cock allows oil to run off direct from the receiver. Air traps should be preceded by a suitable pipeline strainer, as shown in the two previous installation diagrams.

Having now dealt with the receiver on the air compressor, it might still be necessary to drain larger piping systems because of cooling down of air during its flow, with consequent falling out of moisture. As mentioned before the water should be brought to each drainage point by providing sufficient drop of horizontal pipe lines, but in practice older piping systems do not take this point into consideration to assist drainage by running pipes with continuous fall. The best point for drainage is then for horizontal pipes at points where risers occur, as shown in Fig. 3. The dotted lines show the relay drainage method for horizontal pipes, providing a suitable point of accumulation of liquid. Fig. 4 illustrates the method of draining the lowest point of a horizontal main pipe. The importance of pipeline strainers to protect apparatus and instruments in compressed air lines cannot be over-emphasized. Placed in front of air traps, of reducing valves and of meters, etc., a strainer having the correct screen is invaluable for securing uninterrupted service of the gadget, which it protects. There is only one snag in practice, namely, that strainers have to be emptied and cleaned *at regular periods of time.* Firms having organized "preventive maintenance" of their plant equipment usually include strainers in their schedule for



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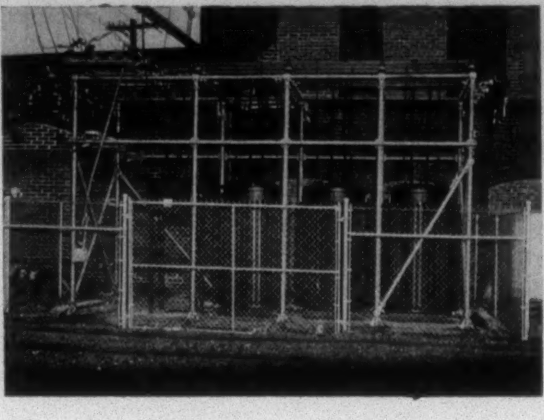

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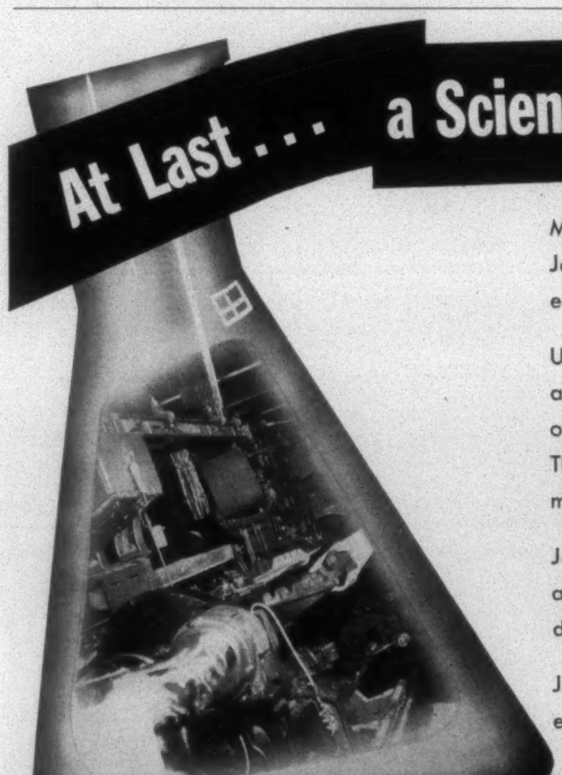

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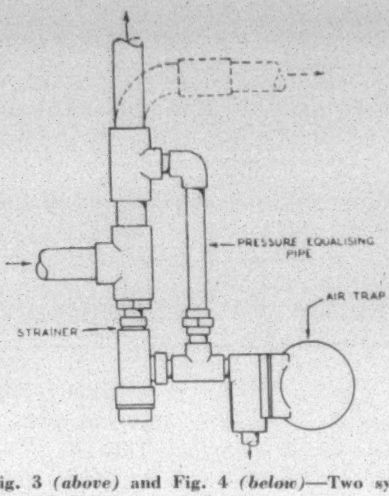
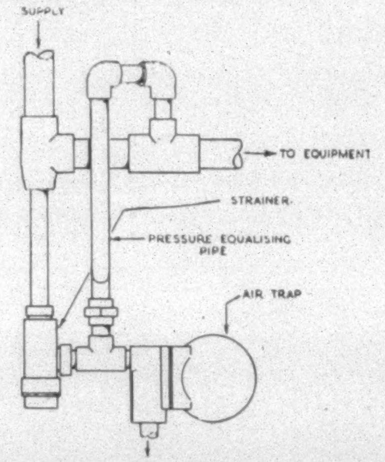


Fig. 3 *(above)* **and Fig. 4** *(below)*—**Two systems of draining vertical pipes.**



servicing, but others just neglect them, until they become partly choked, thus producing a less welcome obstruction and pressure loss.

Air Separators

In order to separate liquids from air in pipelines, a multitude of air separator designs are in use, some of them efficient, others less efficient for higher requirements. It is difficult to advise generally which separator types should be used, because the choice of a pipeline air separator depends entirely on working conditions, and on requirements for cleanliness of air. The basic working principle is usually one of the following methods. Separation of liquids from compressed air can be performed by the use of baffles and simultaneously reduction of velocity of flow as shown in Fig. 5. The body can be made of cast steel or can for larger sizes be welded, and the baffle systems can be taken out by loosening the cover for cleaning purposes. Large baffle surfaces can be used, placed in diverging angles, which divide the air-stream into small volumes, and provide by means of repeat change of direction of the air filaments ultimately the elimination of droplets on the baffle surface. The usual separator designs contain separation chambers, whereby droplets can accumulate and then flow vertically downwards into a sump, where they are drained by a suitable air trap. Other separate types make the air stream pass through various perforated baffle plates, alternating with repulsing solid baffles, until clean air leaves the separator.

Another separating principle splits the air stream into minute filaments, as described in the following. A type of apparatus uses a non-chemical, purely mechanical method for thorough purification of the air, and has been repeatedly used by the writer for improving less efficient existing oil separators. The apparatus can be inserted after the existing oil separator, and is shown in Fig. 6. This super-separator consists of an upper body part, which can be either a C.I. valve body or welded as illustrated. The lower part consists of an outer shell, welded in the usual way, and of an inner central tubing, at the end of which is fixed a conical body. The air is diverted into innumerable fine streams by a gauze cylinder and the heavier liquid particles adhere to it and flow by gravity into the sump. Direction of air flow is then reversed, whereby heavier liquid particles fall out. The stream of air is now forced through a large surface of several smaller bronze filter gauze. It is thus split up into many fine air streams, which pass at reduced velocity through several layers of fine-mesh bronze gauze, supported by several perforated metal cylinders. These filter gauze cylinders extricate not only the finest solid particles from each small air filament, but also force water and oil droplets out. The liquid particles form fine paths of liquid at the outer cylinder surfaces, which flow by gravity downwards and drop ultimately into the sump. The surface of the screening gauze cylinders is usually five to ten times

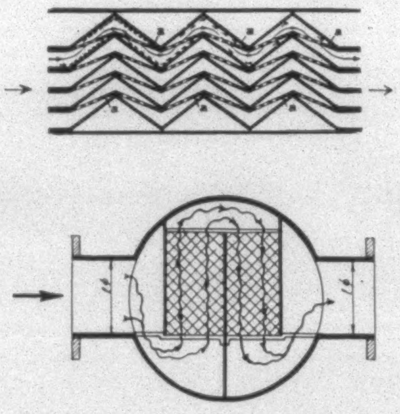


Fig. 5—Baffle-type air separator with sectional view ***(top)*** **of plates and section plan view** ***(bottom)*** **of twin baffle elements.**

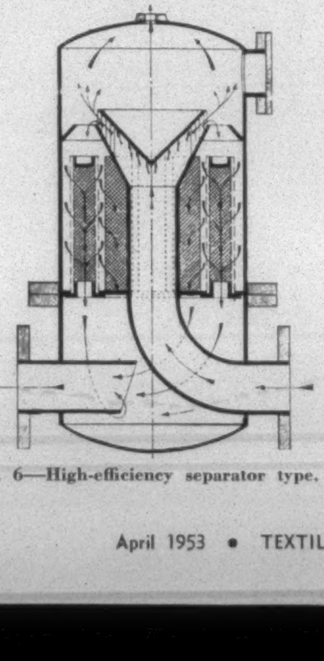


Fig. 6—High-efficiency separator type.

larger than the free area of inlet and outlet of the apparatus, and no objectionable back pressure can be developed. The actual filtering surface within the fine-mesh gauze, being wrapped ten to 20 times around the large supporting perforated cylinder can only be guessed, but offers an enormous opportunity for any liquid particle to depart from the air.

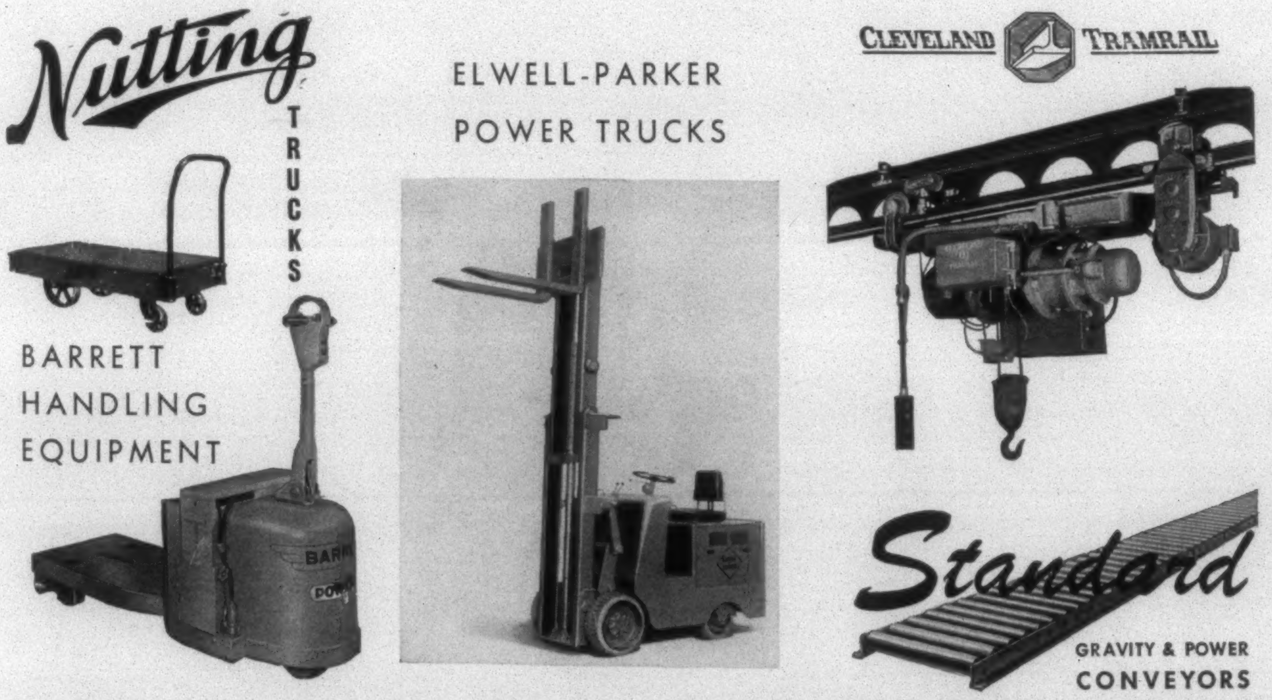
This double-filtering method has proved efficient, where standard baffle separators could not cope with the demand for cleaning. Here again, a greater number of layers of fine-mesh bronze gauze must be used to provide the requested great filtering surface in the central large filter cylinder, and in the smaller filters arranged concentric around it. Practical experience has proved that by inserting this type after the conventional type of air separator the air can be thoroughly cleaned. Two working conditions, however, must be adhered to. The oil-water mixture must be automatically drained as soon as it forms, otherwise the air might pick up again impurities; secondly, the apparatus must be regularly cleaned, and frequently inspected for cleanliness.

The first condition demands fitting of the correct type of ball-float air trap, acting continuously on draining the apparatus. The second condition of cleanliness requires regular cleaning of the filter surfaces, facilitated by the design, which allows lowering of the lower part of the outer shell without dismantling of the top section from the pipeline. The filter cylinder is thus exposed, and can be cleaned by steam spray, or water spray, or by brushing with hot water, or in extreme cases with a solution of caustic soda, which latter operation must be followed by careful washing with clean water.

The use of a good quality of cylinder lubricating oil for a reciprocating air compressor is important. Excessive compressor cylinder lubrication must, of course, be avoided because it would unnecessarily increase the duty of the separator. The advice of reputable suppliers of lubricating oil should be sought, in order to ensure the use of best possible oil quality to facilitate separation. In practice it has sometimes become necessary to do a little experimenting to find the right lubricating oil quality which does not decompose and remains in droplet form for easy elimination. Where the latter is not the case, only chemical washing of the air will extract oil, but this method requires careful drying of the air after wet treatment, and is costly (Fig. 6).

A third method of separating liquid droplets from compressed air is the use of centrifugal force. The air enters at a spiral or walls or wall, where they are outside the air stream and flow downwards to the drainage point. For example, the air enters the separating chamber which is formed by a worm, and the housing makes the air take a circular spiral path. The heavier liquid particles are subjected to a vigorous whirling movement, until they slide along the walls of the housing downwards into the sump to be drained.

In conclusion, the writer would point out that very often the type of air separator used would be quite efficient if correctly installed, and properly trapped.



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By F. O. STONE – Part Three

THE method of dyeing naphthols (water insoluble azo dyestuffs) was first developed approximately 60 years ago by a group of English and German dye chemists. Naphthols and allied types of dyestuffs are usually called "ice colors" as they formed within and on the fiber by impregnating with a sodium salt solution of the naphthol followed by the coupling or developing of the dyed shade through use of a diazotized fast color base or fast color salt in a cold bath usually chilled with ice to 50-70° F.

The first types of "ice colors" were the Para reds (paranitraniline), Bordeaux (alpha-napthylamine), orange (meta-nitraniline) and blue (dianisidine), produced by coupling with beta-naphthol. This method produced colors of moderate fastness and it was difficult to obtain uniform dyelots from one dyeing to the next as well as the levelness of dyed shades were not equal to direct colors as a whole of that period.

Through the introduction of the naphthol AS group of coupling or developing agents, this type of dyes increased until now it covers practically the entire range of shades though rather impractical on greens and expensive on browns.

Dyeing methods for applying naphthols may be classified as the best illustration of "pure chemistry" being applied on a practical basis on the dyeing and finishing of textile fibers, yarns and fabrics. For this reason the dyeing of naphthols on yarns and piece goods must be carried through carefully in line with recommended procedures if uniformity and levelness of shades are to be obtained.

Some of the chief sources of trouble that cause lack of uniformity, poor penetration and levelness of naphthol shades are as follows:

(1) *Satisfactory preparation and dissolving of naphthols and use of sufficient caustic in bath to prevent them from precipitating out of solution.* There are two standard methods of preparing and dissolving naphthols, these being the "hot" and "cold" method. *Hot method,* pasting up naphthol with highly sulfonated castor oil, fatty alcohol, or like colloidal agents, then adding the required amounts of caustic soda solution and boiling until a clear solution is obtained. The cold method, pasting up the naphthols at room temperature with approximately one quart of methonol or denatured alcohol per pound of naphthol powder until a fine slurry paste is obtained, adding the required amount of caustic soda in solution with constant stirring until a clear naphthol solution is obtained.

The water used for diluting the dissolved naphthol solution to volume must be properly "sprung" with caustic soda so as to obtain a clear solution for starting up the naphtholation operation (impregnation of yarn or piece goods with naphthol solution).

(2) *Stabilizing naphthol solution.* As naphthols are not easily dissolved it is very important that the clear condition of solution be maintained throughout the naphtholation operation. Naphthol solutions are sensitive to "hardwater" conditions. This is largely corrected through use of properly Zeolite-softened water. It is highly desirable that a small amount (0.5 to 0.2 ounces per gallon) of a sequestering agent, sodium meta-hexophosphate (Calgon), quadrofos or like water softening agents be added to dyebath before the concentrated dissolved naphthol solution is added. This use of these agents increase the "stability life" of the naphthol solution. It has been further found from plant operations that it is very desirable to use an excess of alcohol in pasting up naphthol preparatory to dissolving as this excess alcohol helps to maintain a more stable solution should the caustic be added too quickly in dissolving.

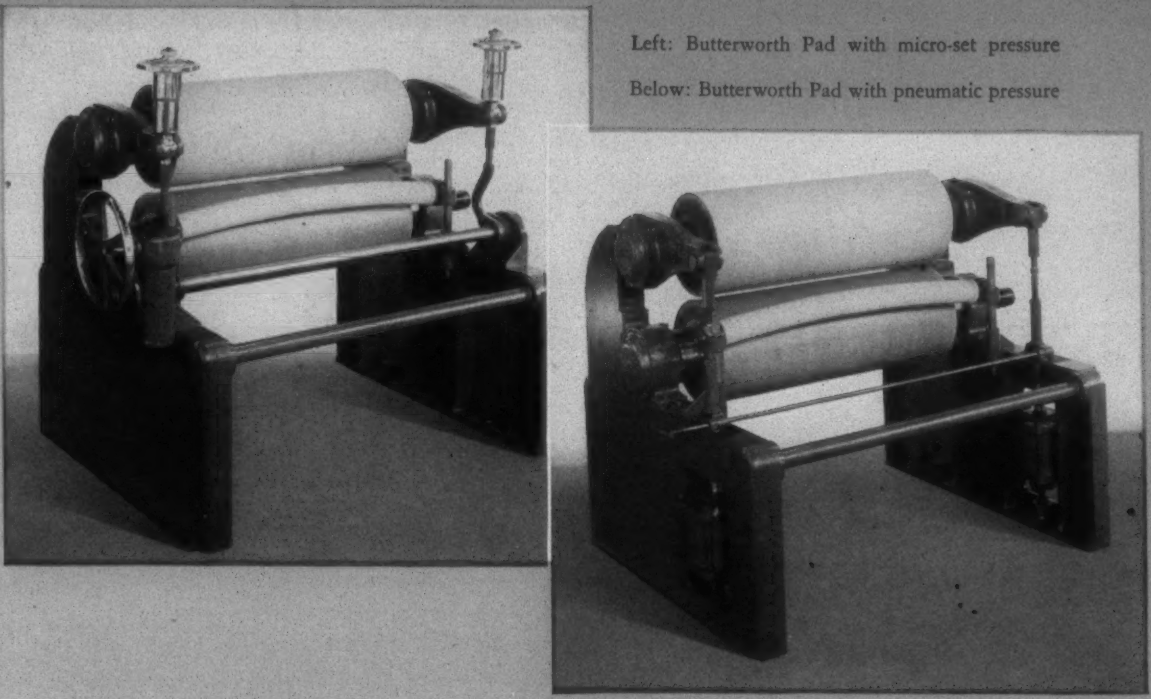
Other agents that have merited some investigation and plant use to help stabilize naphthol solutions are sulfonated fatty alcohol such as the cetyl and lauryl alcohol sulfonates (Duponal D, Orvus ES and like types).

If a naphthol solution stands too long after preparation or is not carefully prepared, as soon as it becomes cloudy it is noticeable how often the coupled naphthol shade will be weak and crack heavily, due to the depositing of the naphthol solution on the surface of the goods instead of proper impregnation of goods through thorough penetration. The excess addition of alcohol has proven of value to give a stable clear solution that will not precipitate out on short periods of standing and improving penetration and levelness of dyeing.

There are many so-called naphthol dispersing and stabilizing agents recommended for use to improve solubility and stability of solution though it has been observed that greater care in preparation and adherence to proven formulation methods gives better results than the addition of too many so-called cure-alls. The less the number of products used in preparing and applying a naphthol the better results will be obtained if the plant has developed a good preparation and application procedure.

To obtain the best results on a dyed naphthol shade freest from crocking and a level shade with good penetration, the naphthol must be in complete solution so that the goods can pick up the required substantive amount of naphthol used on formulation.

(3) *Use of special assistants for stabilization and exhausting naphthol.* Naphthols are divided into two chief classes—substantive and partially substantive. Naphthol AS-SW, AS-SG, AS-BR, etc., are chief examples of the substantive type while Naphthol AS- AS-G, AS-D are examples of non-substantive type. The substantive type may be used in dyeing yarn or staple fibers in pressure package



Left: Butterworth Pad with micro-set pressure

Below: Butterworth Pad with pneumatic pressure

At Last a Basic Padder

Pneumatic or Micro-Set . . . up to 15 tons . . .
2-3 rolls any width . . . average 12-week delivery

There's something new in Padders. A 2-year program for the standardization of component parts has now been completed and Butterworth offers a choice of 2-roll and 3-roll padders and mangles . . . in any width . . . with an average delivery of 12 weeks.

With the new Butterworth Padders, there is a choice of pneumatic or micro-set pressure systems, with pressures up to 15 tons. The micro-set system is designed to operate easily and accurately up to the full 15-ton loading pressure. The pneumatic system is complete with pressure indicators and controls.

Frames and housings are of rigid cast iron construction, properly braced. Rolls are mounted in spherical roller bearings designed for long life and trouble-free operation. Nip rolls can be furnished all rubber covered or in combination with stainless steel rolls. Accessories such as expander bars, friction let-off and winders are included to meet operating requirements.

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machine whereas the non-substantive would not be suitable as these dyeing operations require use of salt rinses to remove excess surface naphthol solution prior to coupling action of fast color salt solution.

Great care must be exercised in proper use of salt solutions to the substantive naphthols to exhaust same on pressure dyeing machines as this is a noticeable source of causing non-level dyeings through too rapid exhausting of naphthol solution onto yarns.

Precaution must be taken in the use of formaldehyde in naphthol dyebath to prevent oxidation of naphtholated goods before coupling operation takes place. Only a limited number of naphthols can use formaldehyde satisfactorily in the naphtholation operation without affecting the shade.

The use of formaldehyde in naphtholation operation when piece goods are padded and batched prior to coupling has been found most useful as it tends to prevent partial drying out of naphtholated goods which would cause light spots throughout dyed shade when coupled.

'Longhair' Study: Phototropic Behavior Of Dyes

INTERESTING information regarding the effects of light on organic dyes has resulted from a program of research which the National Bureau of Standards is conducting on the photochemistry of dyestuffs. Through intensive studies of the absorption spectra of thioindigo and azo dyes, it has been possible to correlate the color changes of light-sensitive dyes with changes in molecular configuration. While the results obtained thus far apply primarily to reversible changes in color of dyes in solution, they should provide a valuable basis for further study on the irreversible fading of dyed fabrics during use.

The fading of dyes and dyed fabrics upon exposure to light constitutes an important problem in the dyestuff and textile industries, and considerable effort is now being expended to develop dyes of improved light-fastness. Although the term "fading" ordinarily implies loss of color or reduced intensity, in the field of dyes it may be used to indicate a darkening as well as a lightening of color. Fading involves a change in hue, intensity, brightness, or any combination of these characteristics, which may be detected in the laboratory as a change in the spectral absorption curve of the dye. Because the absorption curve is an inherent characteristic of the dye molecule as a whole, fading must necessarily involve some alteration in the structure or state of aggregation of the dye molecules.

In general, the fading of dyes must be reversible or irreversible, depending on the nature of the chemical changes that cause the change in the absorption spectrum. Those dyes which exhibit reversible changes in their spectra upon irradiation with visible or untraviolet light are said to be phototropic. The N.B.S. investigation of phototropic dyes is part of a general program which seeks to determine the effect not only of light but of heat and other variables on the absorption spectra of various kinds of dyes. This program is being conducted by Dr. G. M. Wyman and J. H. Gould of the N.B.S. staff with the collaboration of Dr. Wallace R. Brode, associate director of the bureau. It is partially supported by the Department of Defense.

The N.B.S. study of phototropic dyes began with an investigation of a number of thioindigo dyes dissolved in benzene or chloroform. It was observed that the absorption spectrum of the solution was not always the same but was dependent on the illumination to which it had been exposed before the measurement. Exposure to light in the wavelength range of the first (longer wavelength) absorption band (yellow or red light, depending on the dye used) led to a reduction in the intensity of this band and the appearance of a new absorption band at a shorter (by about 50 millimicrons) wavelength. This change was readily reversed to yield the original spectrum simply by exposing the solution to light of a wavelength range corresponding to the new absorption band.

Spectral changes of this kind in the thioindigo dyes are appreciable, and in some instances they may be observed visually. For example, the dye known as 6,6'-diethoxythioindigo ordinarily is orange-brown in benzene solution; upon irradiation with orange-yellow light the solution changes to a lemon yellow, which can be reversed to the original orange-brown by irradiation with blue light.

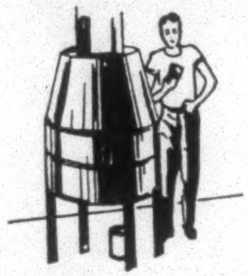
The chemical structure of thioindigo dyes consists of two ring systems connected through a central double bond, each system containing a polar carbonyl (=CO) group. Like other organic compounds containing double bonds, thioindigo dyes can exist as two different space isomers, designated *cis* and *trans*. In the cis form the carbonyl groups are on the same side of the molecule while in the trans form they are on diagonally opposite sides. Thus, the trans isomer has a center of symmetry and for this reason is non-polar, whereas the cis form lacks a center of symmetry and therefore has a dipole moment.

It seemed probable that the phototropic changes that had been observed in the thioindigo dye solutions could be attributed to a shift in the equilibrium between cis and trans forms, or in other words, to a photochemical conversion of some molecules of one isomer to the other isomer. Final proof of this theory was obtained when the two isomers of thioindigo were separated by chromatographic adsorption in the absense of light and their absorption spectra were determined.

Apparently, in these instances irradiation of one isomer with light of the wavelength range selectively absorbed by that isomer results in partial conversion to the other isomer. Thus, by irradiation with light of the proper wavelength, it is possible to enrich a solution preferentially with respect to either form.

In the N.B.S. experiments, a solution of thioindigo in benzene was first enriched with respect to the cis form by exposure to yellow light (about 520 millimicrons) for 20 minutes. The enriched solution was then poured into a column packed with silica gel. Because the more polar cis form is adsorbed more strongly on the adsorbent, the non-polar trans form is more readily removed by washing with a solvent such as benzene. After the two isomers had been separated in this way, their individual absorption spectra were obtained. The entire separation process was carried out in a dark room, illuminated only by a deep red light of low intensity, which color is not absorbed by either isomer of this particular dye, and the separated isomers were kept in darkness until their spectra were determined.

In benzene solution the cis isomer of thioindigo appears orange-colored while the trans form is pink; their absorption curves are correspondingly different when determined before exposure to light. On standing in daylight the solution containing the cis form turns pink gradually, indicating spontaneous conversion to the trans isomer; and after a half hour the solutions are spectrophotometrically indistinguishable, indicating that equilibrium has been established. Similar results were obtained with other thioindigo compounds.



The investigation was then extended to the azo dyes, another important group containing a central double bond. Previously the cis and trans isomers of azobenzene and some simple azobenzene derivatives had been separated and identified by G. S. Hartley and A. H. Cook in England, and the existence of a photochemical trans-to-cis conversion in these compounds had been established. But, since in each case the isomers had similar spectral absorption curves, isomerization resulted in only slight changes in the spectra of the solutions. No direct evidence concerning the existence of cis and trans isomers of amino or hydroxy azobenzenes could be obtained by these investigators. About ten years ago E. I. Stearns noted that dimethylamino azobenzene (along with a large number of dyes of varied structures) shows a rapid change in color upon exposure to intense light, followed by speedy reversal to the original color in darkness; but no attempt was made to correlate this phototropic behavior with changes in chemical structure.

At the National Bureau of Standards, a preliminary study of several four-amino azobenzenes in benzene solution indicated that their absoption spectra are indeed a function of the irradiation to which they have previously been exposed. However, the reversal of this phototropic change is so rapid that, even during the three to five minutes required to obtain a complete spectrum on a recording spectrophotometer, the spectra undergo considerable change. It was therefore necessary to design and construct a special shutter device permitting essentially simultanous illumination and measurement of the solutions. With the aid of this shutter it was possible to obtain reproducible absorption curves characteristic of the irradiated solutions.

The phototropic behavior of these azo dyes was found to parallel that of the thioindigo dyes: upon irradiation with light of a wavelength corresponding to the principal absorption band of the dye, the intensity of that band is considerably decreased, and a new band appears at a slightly shorter wavelength. However, immediately following removal of the irradiation the absorption curve changes back rapidly, especially when the solution is stored in the absence of light. This rapid reversal in the absence of irradiation constitutes the principal difference between the behavior of the azo dyes and that of the thioindigo dyes. Thus, it seems likely that solutions of the azo dyes under normal laboratory illumination contain both cis and trans isomers in equilibrium, with the formation of the former favored by irradiation within a wavelength range absorbed by the latter. The cis isomers of these azo compounds apparently are much less stable (relative to their trans counter parts) than in the case of thioindigo dyes, and for this reason it is believed to be impossible to separate the two geometrical isomers of amino or hydroxy-substituted azo compounds. It is possible, however, to calculate the approximate spectral absorption curves of the two forms obtained under different conditions of illumination.

It is interesting to note that azo dyes containing hydroxy groups adjacent to the azo group show little tendency to phototropism, probably because hydrogen bonding stabilizes the trans configuration. This is also true of thioindigo dyes dissolved in sulfuric acid, a solvent that can readily donate hydrogen ions to the solute, and of indigo dyes dissolved in organic solvents. In both these instances it is possible for the trans configuration to be stabilized by hydrogen bonding.

These results may also be applicable to solutions of dyes in glasslike solids, such as dyed plastics. Thus, it would seem that dyes having improved resistance to the effects of light might be obtained by synthesizing molecular structures with hydroxy or certain other hydrogen-containing groups in strategic locations, so as to provide a more rigid chemical structure through hydrogen bridging. Extension of the N.B.S. study to include dyed fibers and the irreversible fading of dyes should provide information applicable to the more general problem of the light-fastness of all types of dyed fabrics.

Cite Progress In Solving Dye Problems.

More difficulties will be encountered in the future in the dyeing of the new synthetic fibers, but they will be solved "as they have been in the past," Edward Szlosberg, textile chemist for Sandoz Chemical Works Inc., New York, told the recent Spring meeting of the Piedmont Section of the American Association of Textile Chemists & Colorists at the Hotel Robert E. Lee, Winston-Salem, N. C.

He spoke on "Dyeing of the New Synthetics." After reviewing many of the problems which had been encountered in dyeing synthetics and many of the solutions which had been suggested and experimented with, Mr. Szlosberg concluded that some solutions which seemed good today would lose their validity in the light of future developments.

Boyce C. Bond, sales supervisor of Pittsburgh Coke & Chemical Co., Pittsburgh, Pa., and inventor of the dyeing machine which bears his name, also addressed the session. Mr. Bond, discussing recent developments in his machine in an illustrated lecture, described the machine as requiring much less space than conventional dyeing equipment, and permitting runs of as little as 50 yards on many types of fibers and dyes. He said the equipment uses a small amount of dye. It can be regulated from 20 to 120 yards a minute and can be cleaned easily in a short amount of time, he stated.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Keith R. J. Horner *(left)*, vice-president and general manager of the Ciba Co. Ltd., Montreal, Canada, has been named executive vice-president of Ciba Co. Inc., a new post, with headquarters in New York City. William H. Kieffer *(at left below)*, for the last three years assistant to the president of Ciba Co. Inc., has been appointed general sales manager. Samuel I. Parker, who Mr. Kieffer succeeds, continues as vice-president and will have other administrative responsibilities. . . . Dr. Charles J. Weidman *(right)*, manager of the technical department of the Montreal unit, becomes technical director of Ciba Co. Inc.

David B. Eden Jr. has been named manager of the Charlotte, N. C., district of SKF Industries Inc., Philadelphia ball and roller bearing firm. Mr. Eden was field engineer for SKF at Boston, Mass., prior to his new assignment. He joined SKF in 1940 and was successively quality engineer, supervisor of quality control and field engineer. He will make his home in Charlotte, with business headquarters at 612 Johnston Bldg., Charlotte 2, N. C.

E. B. Shaw has been promoted from general manager of the New England Division of American Thread Co. and placed in charge of all the firm's manufacturing and finishing plants. Mr. Shaw replaces J. Hal Daughdrill, who was vice-president and general manager and in charge of Southern operations. Mr. Daughdrill has resigned to assume the presidency of Kingston Mills, Cartersville, Ga., and Textile Research Co., Atlanta, Ga.

Lawrence L. Copenhaver has been named personnel superintendent and Boyce S. Myers as assistant personnel superintendent of the Chemstrand Corp. nylon facilities now under construction at Pensacola, Fla. Both will be engaged in activities co-ordinating procurement of employees to staff Chemstrand's nylon manufacturing and processing units which are expected to begin production early in 1954. Immediately prior to joining Chemstrand, Mr. Copenhaver was personnel director with Beaunit Mills at Childersberg, Ala., and before that was assistant employment manager with North American Rayon Corp., Elizabethton, Tenn. Mr. Myers, a native of Decatur, Ga., previously was manager of industrial relations with Georgia Kaolin Co., Dry Branch, Ga., and served as personnel assistant with Veterans Administration at Thomasville, Ga.

Jacques A. Arrouet has been appointed fabric development engineer of the textile division of United States Rubber Co. With headquarters in the company's general offices in New York City, Mr. Arrouet will be responsible for the development of certain engineered end-use textiles. He is joining U. S. Rubber Co. after recent experience with Collins & Aikman where he was in charge of design and development of blended wearing apparel fabrics.

Leo W. Rainard has resigned as director of research for the carpet division of Alexander Smith Inc. Prior to joining Alexander Smith in 1947, Mr. Rainard held positions with Atlantic Research Associates, General Latex & Chemical Co. and the Institute of Textile Technology. He is a graduate of the Massachusetts Institute of Technology. Mr. Rainard made no announcement regarding his future plans. No replacement will be named for Mr. Rainard.

Paul W. Carrington, for many years New York representative of Union Bleachery, Greenville, S. C., retired March 31. Mr. Carrington began his association with the company in the 1920s as a sales representative in New York. Within a few years he was made head of the New York sales office. Mr. Carrington will make his home in Virginia. . . . H. H. Cass, who has been on the staff of Union Bleachery's New York sales office since Jan. 1, 1939, succeeds Mr. Carrington as head of that office.

R. L. Zachry has been promoted from general superintendent of Fulton Bag & Cotton Mills, Atlanta, Ga., to the position of director of the quality control division of the company. Mr. Zachry has been connected with Fulton Bag for 39 years and has been general superintendent since 1940. Mr. Zachry has been succeeded in his former position by Clarence C. Chavous, who joined Fulton Bag a number of years ago after having been general superintendent of a cotton mill in another state. . . . Norman W. Touchette has been appointed director of research in charge of new product development. Mr. Touchette has been in charge of the laboratory at Fulton Bag since completing graduate work at the Institute of Textile Technology three years ago.

Caldwell Ragan of Gastonia, N. C., has ended his retirement from the textile field by accepting the position of general manager of Trenton Mills Inc. of Gastonia. Mr. Ragan, who retired about a year ago, operated Ragan Spinning Co. at Gastonia many years before selling out to J. P. Stevens & Co. several years ago.

Walter N. Lefler Jr., waste supervisor of the Carter Fabric operating group of J. P. Stevens & Co., Great Falls, S. C., has been named Great Falls' "Young Man of the Year" for 1952. Prior to joining Stevens three years ago Mr. Lefler was associated with Textiles Inc. at Gastonia, N. C.

J. C. Self Jr., treasurer of Greenwood (S. C.) Mills, and R. G. Emery, executive vice-president of J. P. Stevens & Co., have been named to the board of directors of the Piedmont & Northern Railway Co.

James H. Orr, managing partner of Colonial Management Associates, Boston, Mass., has been elected to the board of directors of the Draper Corp., Hopedale, Mass.

Henry H. Bitler *(at left below)* will leave American Viscose Corp. Sept. 1 to join Chemstrand Corp. On Dec. 1 he will become president and chief executive officer of Chemstrand, succeeding Ozborne Bezanson *(right)*, now president, who will become chairman of the board on that date. Chemstrand is jointly owned by American Viscose

U S Bobbin Now Making Cotton Warper Beams

LAWRENCE, MASS. — It has recently been announced that a newly designed cotton warper beam with unique construction features has been made available to the industry by the 96-year-old U S Bobbin & Shuttle Co.

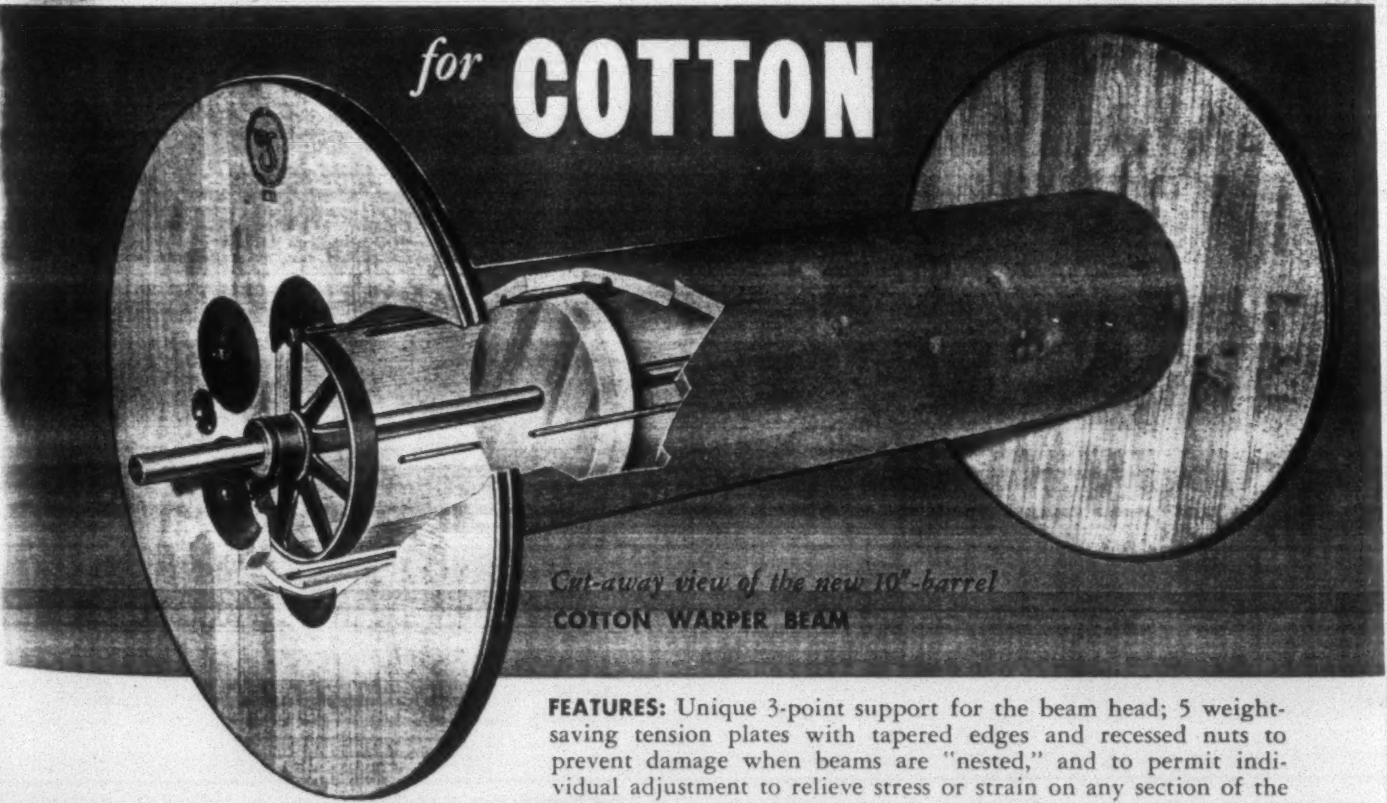
Not willing to build just "another warper beam", U S engineers gave considerable study to the possibility of making improvements in design and selection of materials, and they now state that their new cotton warper beams offer many advantages such as three-point support for the beam head; minimizing of "nesting" damage; reduction of weight, individual tie-rod tension-plate adjustment; greatly improved internal construction; improved tires; and use of more satisfactory materials.

One of the most valuable of the new features is the unique design of the casting used in both ends of the barrel on all U S warper beams. The hub of the casting is formed with a substantial shoulder, from which the center of the head derives additional support during the build-up of the beam; whereas conventional castings do not prevent the tendency toward outward deflection of the head during this operation.

The company reports that the weight of the U S cotton beam has been materially reduced by using five newly designed cast iron tension plates instead of the single heavy cast iron plate commonly used on both heads of the beam. These five plates are bolted onto heavy steel tie rods and can be individually tightened to relieve stress or strain on any section of the head. Having a tapered edge, these tension plates cannot damage the beams when "nested" for storage.

The rim-protecting tire of the warper beam head is specially treated 3/32" steel, heavier than customarily used. The tire is grooved, heated and shrunk-fitted onto the head for a tighter assembly.

Excellent deliveries are being made from the newly-equipped plant of the U S Warper Beam Division, at Keene, N. H.



for **COTTON**

Cut-away view of the new 10"-barrel
COTTON WARPER BEAM

FEATURES: Unique 3-point support for the beam head; 5 weight-saving tension plates with tapered edges and recessed nuts to prevent damage when beams are "nested," and to permit individual adjustment to relieve stress or strain on any section of the head.

U S BOBBIN & SHUTTLE CO.

SEND TODAY for
set of blueprints and Bulletin CWB,
revealing construction details of the new 10", and 12"-barrel U S Cotton Warper Beams, Beam Heads, and Tension Plates.

Manufacturing Plants
LAWRENCE, MASS. • GREENVILLE, S. C. • KEENE, N. H.

General Sales Office LAWRENCE, MASS.

Southern Division Headquarters So. Carolina National Bank Bldg., GREENVILLE, S. C.
CHARLOTTE, N. C. JOHNSON CITY, TENN. FORT MILL, S. C. LaGRANGE, GA.
PHILADELPHIA, PA. PROVIDENCE, R. I. MINNEAPOLIS, MINN.
DALLAS: O. T. Daniel, Textile Supply Co. LOS ANGELES: E. G. Paules, 1762 W. Vernon Ave.
CANADA: W. J. Westaway, Montreal, Que., Hamilton, Ont.

U S

Corp. and Monsanto Chemical Co. Now completing 33 years with American Viscose Corp., Mr. Bitler has served the corporation in many capacities, most recently as a member of its board of directors and as general manager of acetate and vinyon manufacturing. Mr. Bezanson, formerly a vice-president and officer of Monsanto, has been president of Chemstrand since November 1950. During the period of his leadership the company has experienced its major growth structure.

Ernest Blakely Jr. of Greenville, S. C., has joined the sales staff of Chas. S. Tanner Co. of Providence, R. I., and will cover the Southern territory for this company. Prior to his new connection Mr. Blakely was with Frank Ix & Sons for three years. He is a graduate of the School of Textiles at Clemson (S. C.) College. Chas. S. Tanner Co. manufactures dextrines, starches, gums, resins and other products used in sizing and finishing operations.

John T. Wooster has been elected treasurer and a director of Spool Cotton Co., distributor of J. & P. Coats and Clark's O.N.T. threads and Crown zippers. He joined the organization in 1938 and has held various executive posts. Previously he was associated with Moody's Investors Service and Lazard Freres & Co. His father, James W. Wooster, also served with the organization as a sales executive and retired in 1940 after 43 years with the company. Mr. Wooster succeeds De Witt L. Alexandre, who has resigned.

Albert R. Breen, associated with the textile industry for 30 years, recently has been appointed to represent Steel Heddle Mfg. Co. and its Southern Shuttle Division. From headquarters at 80 East Jackson Blvd., Chicago, Ill., Mr. Breen will represent the company in Minnesota, Iowa, Wisconsin, Illinois, Michigan, Indiana, Ohio, Mississippi, and Louisville, Ky.

Friends of W. C. McKinney, general superintendent of the Carolinas plants of American Thread Co., will be gratified to learn that Mr. McKinney is now able to spend some time each day in his office at Clover, S. C. Mr. McKinney suffered a heart attack earlier this year.

James K. Lindsay has been elected secretary of Heyden Chemical Corp., New York, succeeding Paul van der Stricht, resigned. Before joining Heyden Mr. Lindsay was a partner in the New York law firm of Fulton, Walter and Halley.

John K. Cochran has been elected a vice-president of the Duplan Corp. Mr. Cochran has been with the company since 1944, becoming chief engineer in 1949, and has been a director and general manager of its weaving and throwing plants since 1950. He will transfer his headquarters from Hazelton, Pa., to Charlotte, N. C., most of the company's manufacturing plants now being in North Carolina, Virginia and Tennessee. . . . It also was announced that Emmett F. Williams, plant manager at Lincolnton, N. C., will be transferred to the new Duplan plant at Burnsville, N. C. Frank Poletti of Hazelton will replace Mr. Williams in Lincolnton.

Guy Atkinson, formerly with Woodside Mills at Liberty, S. C., is now overseer of the cloth room at Norris Cotton Mills, Catachee, S. C.

James R. Johnson has been appointed overseer of the print weaving department at Startex (S. C.) Mills. Before joining Startex Mr. Johnson was with Camperdown Mills, Greenville, S. C., as overseer of weaving. Previously he was with Chicopee Mills, Walhalla, S. C., first as a member of that plant's costs and standard department and later as shift foreman.

Joe T. Short has been promoted to assistant research engineer of Callaway Mills Co., LaGrange, Ga. Mr. Short joined Callaway in 1946 as a research machinist and in 1947 was promoted to advance research machinist.

Stewart B. Blanton has been promoted from department engineer to sales engineer for the South Carolina territory by American Moistening Co., Providence, R. I. Mr. Blanton has been with the firm's Charlotte, N. C., branch since 1947, having joined the organization shortly after his graduation from Duke University. In his new post Mr. Blanton replaces Joseph E. Boston, who died recently.

J. R. Durham Sr., vice-president, assistant treasurer and secretary of Hanes Dye & Finishing Co., Winston-Salem, N. C., has been elected executive vice-president and assistant treasurer. . . . J. R. Durham Jr., formerly assistant secretary, has been elected secretary. All other officers and directors were reelected.

William C. Ross has been named resident manager of the new plant of American Thread Co. at Tifton, Ga. Mr. Ross previously was general superintendent of the firm's Baltic Mills at Enfield, N. H., and Mascoma Mills at Lebanon, N. H.

Harold M. Ballew, veterans training supervisor at Parker High School in Greenville, S. C., has been appointed technical director of the textile training program in Brazil, a two-year appointment under the Institute of Inter-American Affairs of the State Department. His job will be to set up a teacher training plan and to build up a textile training program similar to that at Parker High School.

George E. MacLellan Jr. of New Rochelle, N. Y., has been elected treasurer and a director of American Woolen Co. Associated with the company since 1909, Mr. MacLellan has served at various times as vice-president and controller and as assistant treasurer.

Ronald R. Menti has been elected president of Rossville Dyestuff Corp., Staten Island, New York. Mr. Menti also is associated with the textile division of United States Rubber Co. . . . Howard F. Johnson has been elected vice-president in charge of sales at Rossville. He was with Silk City Chemical Co. prior to joining the Rossville organization.

OBITUARIES

Phillip F. Brown, a pioneer in the rayon industry and one of the men responsible for its great expansion, died in Chester County Hospital, West Chester, Pa., March 23. He lived in Kennett Square. Mr. Brown was director of cellulosic fiber sales for Du Pont, which he joined in 1924 during the early years of rayon development. He was a director of the National Federation of Textiles.

Paul H. Burns, 48, sales representative for Hickory (N. C.) Chemical Co., died recently. Surviving are his wife, his mother, a son and a daughter, two brothers and four sisters.

Clyde T. Lassiter, 67, for the past 30 years district representative of Penick & Ford Ltd. in Greensboro, N. C., died March 23 at a hospital in Greensboro. Surviving are his wife, his mother, two brothers and three sisters.

Dr. Thomas Nelson, 80, internationally-known textile technologist and educator and dean emeritus of the School of Textiles at North Carolina State College, died April 11 at a hospital in Raleigh, N. C. Dr. Nelson, a native of Preston, England, joined the N. C. State College faculty in 1901 and began development of the textile school. He retired as dean of the textile school in September 1943 and until July 1949 was professor of design. He was a recognized authority on fabric design and manufacture. The author of several books, his *Practical Loom Fixing* has an international circulation and is used as a textbook in many colleges. Dr. Nelson helped organize and was a charter member of the Southern Textile Association and also served as first president of the National Council of Textile School Deans. Surviving are one son, two daughters, three brothers and a sister.

Alfred P. Richie, 69, retired textile ex-

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A SOUND BASIC INGREDIENT
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CLINTON FOODS INC.
CLINTON, IOWA

DAMAGED PAGE(S)

his country in 1893 and was associated
h S. C. Love Supply Co. of New Bed-
d, Mass., before going to Charlotte,
C., in 1914 where he established the
st comber needling concern in the South
e had resided in Gastonia since 1929, upon
erger of the Charlotte concern and its Gas-
nia branch. Mr. Shaw is survived by a
rother.

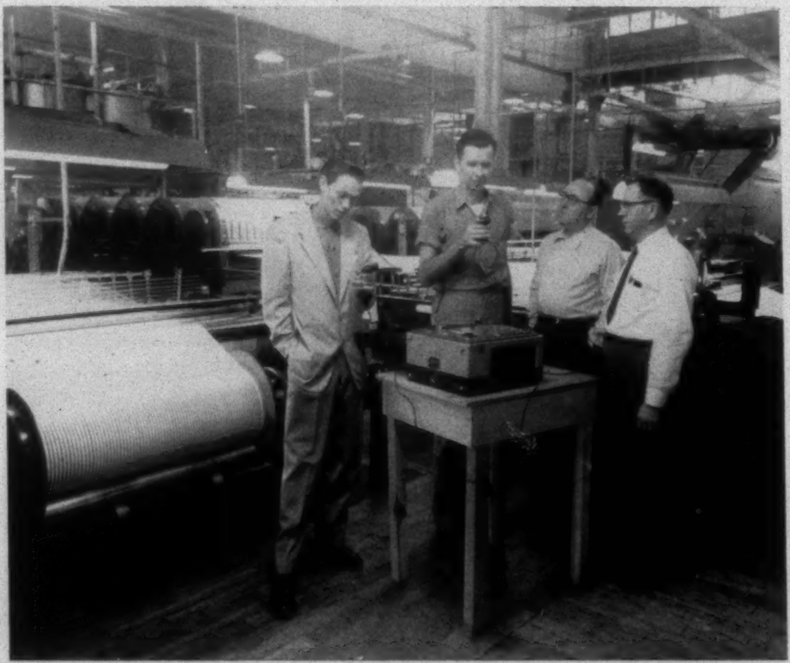
NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

GREENVILLE, S. C. — Southern Worsted Mills Inc. recently announced plans for construction of a 77 by 304 foot one-story addition to its plant here. The addition will house a supply room, storage space and slasher room.

BENNETTSVILLE, S. C.—Oak River Mills of Greenville has obtained an option on about 700 acres of property on the Pee Dee River in the Hunts Bluff section, near Bennettsville, and announced plans for construction of a one-story air conditioned spinning and finishing plant. Construction of the plant is slated to begin this Summer and, when completed, is expected to employ 350 to 500 persons.

NEW YORK, N. Y.—A spokesman for Robbins Mills recently stated that his company "had discontinued all pending negotiations" for a merger with American Woolen Co. Robbins Mills operates spinning and weaving plants at Aberdeen, Raeford, Robbins and Rocky Mount, N. C., with its main finishing and dyeing plant being located at Clarksville, Va.

SPARTANBURG, S. C. — Scholarships to Converse College, Spartanburg, are being offered to daughters of employees of Spartan Mills. One scholarship is being offered at each of three plants: Spartan Mills and Beaumont Mills in Spartanburg and Startex (S. C.) Mills. Applications for scholarships must be made prior to May 1. Each of the three scholarships will be equivalent to the full tuition of a day student for the entire college period of four years.



THE "VOICE OF MOORESVILLE"—The scene above shows production of Mooresville (N. C.) Mills' original "Voice of Mooresville" radio show. Pat Reese *(left)*, master of ceremonies for the program, interviews John Wilhelm, a veteran of more than 25 years with Mooresville Mills, while Tommy Brooks *(far right)*, supervisor of the slasher room, and Paul Caldwell, director of public relations at the mill, observe.

The 30-minute radio show, broadcast every Sunday afternoon from 12:15 to 12:45 over Station WHIP by the public relations department at Mooresville, is believed to be one of the first of its kind among textile mills. The show is recorded during the week at the mill, then broadcast on Sundays.

Primarily the idea of Public Relations Director Campbell and his assistant, Patric Reese, the show, begun last Jan. 4, attempts to provide a medium for keeping the people posted on mill, community and county doings. Besides the news, however, the program features on the spot interviews with "old timers" among the mill employees, programs discussing and explaining the insurance and savings plans employed by the mill, and any other topics and interviews of interest to Mooresville listeners.

CLOVER, S. C.—D. Mackintosh & Sons Inc. of Holyoke, Mass., recently purchased the cotton yarn manufacturing plant and equipment of Yarn Specialties Inc. The mill will be operated under the name of Mackintosh Spinning Mill Inc. as a South Carolina corporation with $130,000 capital stock. The mill was sold by Cary Boshamer of Gastonia, N. C. Mr. Boshamer is an official of Clover Spinning Mill Co. and Carolina Corp., both of Clover. The mill in Clover was built five years ago. The plant is of one-story brick construction with air conditioning. It has been producing 8s and 20s single combed knitted yarns. The new owners plan to add a dye house at a later time. The Mackintosh plant at Holyoke, which utilized about 12,000 spindles and produced carded, combed and dyed yarns, is being liquidated by Wilson Lewith Machinery Corp. of Charlotte, N. C.

CARTERSVILLE, GA.—Controlling interest in Kingston Mills Inc., which utilizes about 2,823 spindles in the production of cotton yarns, has been acquired by J. Hal Daughdrill, formerly associated with American Thread Co.

DURHAM, N. C. — Lee Dyeing Co. of Johnstown, N. Y., is establishing a dyeing and finishing plant at Camp Butner, former Army installation near Durham, that is expected to employ about 100 people with an annual payroll of $250,000. The unit is being set up in the former laundry at Camp Butner which contains 56,000 square feet of floor space. To be known as Lee Dyeing Co. of North Carolina, the new concern has authorized capital stock of $100,000 and incorporators are listed as Richard Evans II of Johnstown, Jacob Schulman of Gloversville, N. Y., and Albert W. Dennon of Durham.

OSCEOLA, ARK.—A new corduroy finishing plant is being constructed here by Crompton-Richmond Co. of Waynesboro, Va. It is estimated that one-shift capacity of the new unit will be 6,000,000 yards of corduroy annually.

HUNTSVILLE, ALA.—A new plant unit at Huntsville Mfg. Co.—a three-story, steel and brick windowless structure costing $198,000—is being constructed between the firm's No. 1 and No. 2 plants and is scheduled for completion in mid-Summer. An

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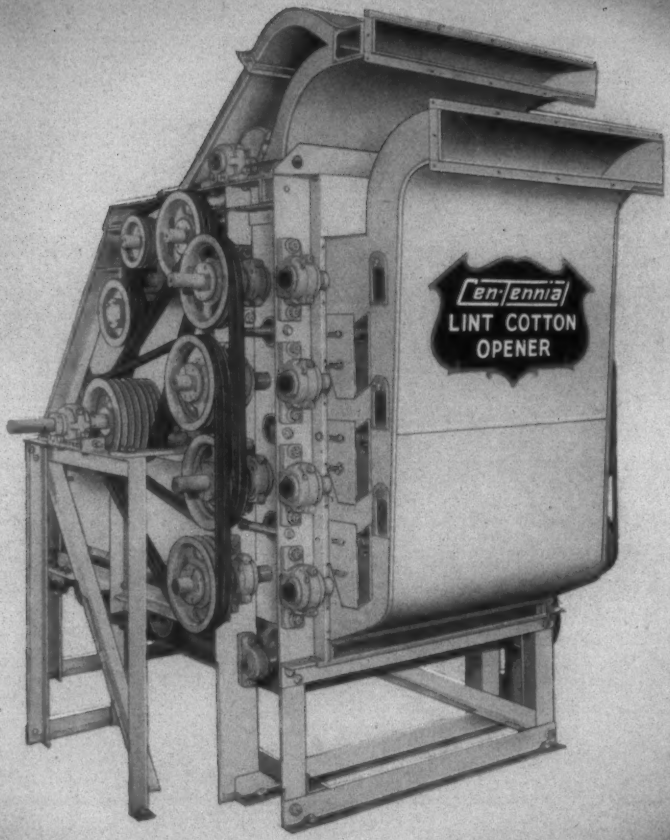


Opens and cleans cotton
without losing any good stock

The Cen-Tennial Cotton Opener is a product of years of research by Southern Regional Research Laboratory, and thoroughly proven by mill experience. It gives many advantages which result in better opening room efficiency, including less waste and a cleaner picker lap. Decidedly worth your investigating. Write for full particulars.

CEN-TENNIAL COTTON GIN COMPANY
COLUMBUS, GEORGIA

additional 250 persons will be provided employment when the current expansion program is completed. Included in the project are the installation of 430 new looms, 24,000 new spindles, and additional machinery for carding, drawing, roving and warping. In addition to the new building, space for additional machinery has been acquired by excavating the basement in Mill No. 1, where new looms will be installed.

BURLINGTON, N. C. — Local officials of Burlington Mills Corp., acting in behalf of the Burlington Mills Foundation, recently donated two checks, each for $5,000, to two Alamance County hospitals: Alamance County Hospital and Alamance General Hospital. The money will be used toward installation of X-ray therapeutic equipment in the hospitals.

SENECA, S. C.—Abbot Worsted Co. of Graniteville, Mass., has let contract to Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala., for a new worsted yarn mill to be located at Seneca. This 85,000 square foot, one-story plant will be totally enclosed and air conditioned, finished in glazed tile throughout. Fiber glass insulation is laid over a precast concrete roof placed on barjoist framing.

EASLEY, S. C.—The new plant of Alice Mfg. Co., which will be utilized for the manufacture of print cloth, is nearing completion. The new plant is located at Alco Station, near Easley.

LAGRANGE, GA.—Walter T. Forbes, president of Summit Textiles Inc., and his associates have negotiated the purchase of Dunson Mills at LaGrange for Pepperell Mfg. Co. of Boston. The closing agreement was executed at LaGrange on March 16. Dunson Mills consist of 40,000 spinning spindles and 10,000 twister spindles and in excess of 750 looms. Walter E. Morton, former president of Dunson, will be general manager of the plant.

For the Textile Industry's Use

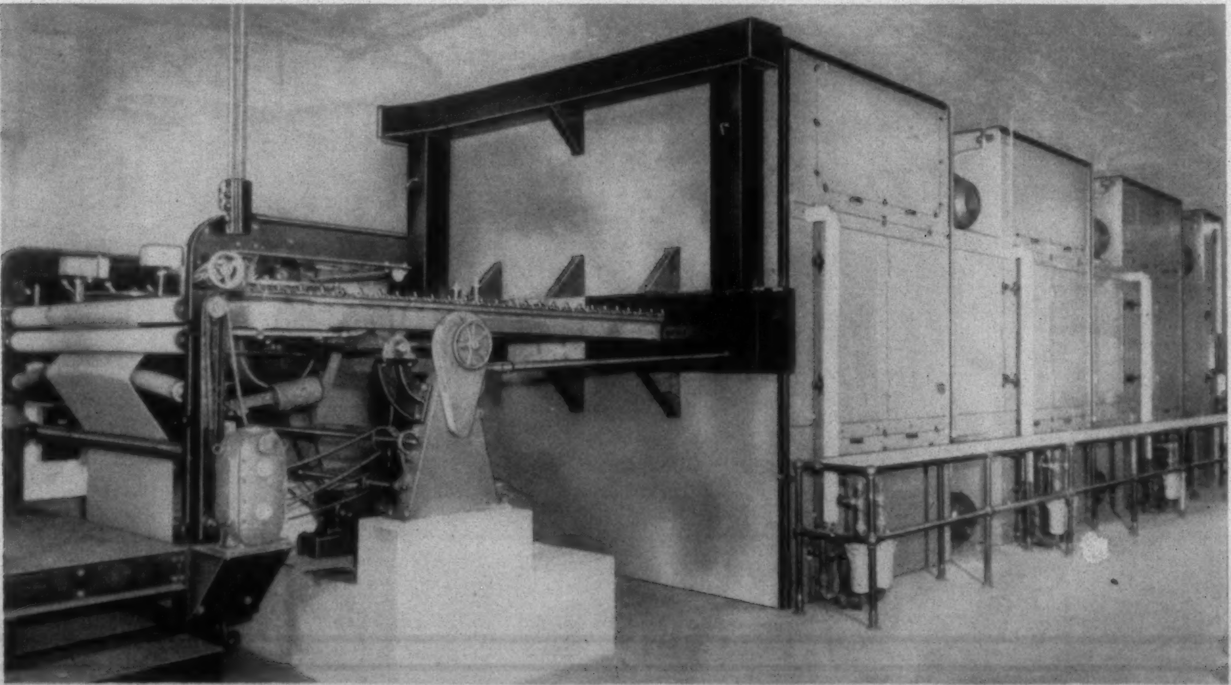
'Vapojet' Dryer Introduced By James Hunter Machine Co.

The James Hunter Machine Co. introduced to the textile finishing trade a completely new type of cloth dryer at a luncheon at the Essex House in New York on Friday, April 10. This dryer, the Vapojet, introduces to the commercial drying field the first machine to use steam as a drying medium, rather than hot air.

Based on a European development, and designed and built under license from Julien Dungler of Basle, Switzerland, the Vapojet dryer impinges superheated steam at high velocity on both sides of the fabric. Speeds of drying are far in excess of any so far realized in the textile finishing field. Controlled drying is obtained, which eliminates shading and undesirable overdrying.

The many special patented design features of the Vapojet make it possible to obtain more efficient evaporation per foot of floor space than can be accomplished with any type of existing machine, the firm claims. This high evaporation capacity produces large savings in space, time and operating expense.

Prominent among the features of this machine are the ingenious telescopic nozzles located between the tenter tracks within 3/16-inch from the fabric, which adjust automatically when the tracks are moved in or out for different fabric widths. The tenter clip itself, which is manufactured exclusively for James Hunter by the Marshall & Williams Corp., can be overfed, giving the operator of the clip tenter all the advantages of a pin type, making it a universal machine. Up to 20 per cent overfeed can be



Actual installation photo of three-section Vapojet tenter dryer in operation at Cliffside Dyeing Corp., Paterson, N. J.

accomplished with firmness and accuracy. The comb type lower plate which permits this overfeeding, also insures uniform drying of the selvage.

Fabrics of all types, from the most delicate rayon crepes to heavy corduroys and worsteds, have been dried successfully with a superior appearance and handle to goods dried on a conventional air machine. The steam vapor atmosphere eliminates the possibility of overdrying and imparts a lofty hand to the cloth which is most desirable.

The Vapojet system has also been designed for use in pre-dryers, where the cloth is pulled either horizontally or vertically through the enclosure, depending on the application, and the nozzles are not telescopic. However, each one is 3/16-inch from the cloth, the same as in the tenter machine. This pre-dryer is extremely valuable in increasing output on existing installations, and also it has proven very valuable in the case of resin work so that the original setting of the resin can take place before it marks off on cans, rolls or clips in the regular dryers.

A second type is the tensionless machine, which is designed with staggered nozzles blowing against driven rolls, rather than against the air pressure of the opposed nozzle. By the use of an overfeed roll, the cloth can be fed into this machine in a slack condition, and complete relaxation in both warp and filling obtained.

The tenter itself, as do the pre-dryer and the tensionless machine, works on the following basis: the machine is made in ten-foot sections, each section containing a fan, copper conduction type heaters, plenum chamber and nozzles, above and below the travel line of the cloth. The dryer uses standard conduction type heaters, and by turning on the fans the temperature within

TEXTILE STUDENT AWARDED SCHOLARSHIP — Dean Malcolm E. Campbell of the School of Textiles at North Carolina State College *(left)* presents the Keever Starch Scholarship, valued at $400, to William Luther Winecoff of Concord, N. C., a senior in the school who was chosen to receive the award on the basis of his student attainments. The scholarship, presented by the Keever Starch Co. of Columbus, Ohio, is given to worthy students interested in textile manufacturing or finishing and preferably to the son of a textile mill employee. Mr. Winecoff will graduate from State College in June.

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(April 1953)

Reader Service
TEXTILE BULLETIN
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Please send me further information and/or free literature described in the following item(s) carried in the "For The Textile Industry's Use" section (list key numbers that appear at end of each item): ____________________

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the housing is raised to 300°. Before the introduction of the cloth, a live steam valve is opened, and this live steam, under pressure, forces the air from the enclosure. The heat of this steam, which at atmospheric pressure is 212°, is raised to 300° by circulating through the heaters and is, therefore, superheated. In other words, it contains 88° of superheat. From this point on, additional steam required to maintain the vapor atmosphere is provided by the moisture evaporated from the cloth. Any excess escapes into the airlock and is then exhausted. When the machine is started, the fabric is admitted into the enclosure, and the superheated stream is blown onto the cloth at a speed in excess of 6,000 feet per minute.

The vapor at the entering end is partially condensed over the cold surface of the cloth. The liquid with which the fabric has been impregnated and this condensing of the vapor liberate latent heat which raises the temperature of the impregnating liquid to the boiling point. The fluid on the surface is evaporated, but the impregnating liquid contained in the fiber is transformed into vapor, and the products which are in solution are kept inside the cloth as solids, while the vapor goes to the surface by expansion, rather than capillary action and does not carry off any of the solids. This is extremely important for crease-resisting and other finishing, as it prohibits migration of the finish or resin to the surface.

Important points concerning the efficient operation of high-velocity superheated steam are that the temperature of the liquid in the cloth is raised almost instantaneously. In the use of an air dryer, the temperature of the impregnating liquid increases slowly and reaches the boiling point only when the liquid is practically evaporated.

With the use of air, energy must be expended to raise the air temperature to an efficient drying temperature. When this air becomes partially saturated, it is exhausted, requiring a repetition of the same process. However, by using superheated steam, and no exhaust other than pressure the drying medium is recirculated through the heaters to replace any temperature drop. In other words, rather than raising air at room temperature to 300° then throwing it away, 300° steam vapor, which loses approximately 25°, is merely reheated to 300°. This results in a much lower rate of steam consumption to moisture evaporated, which affords appreciable savings in fuel and power.

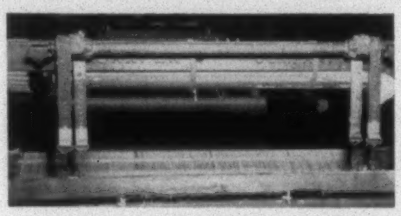
Also, a slight amount of steam vapor is carried in the cloth as it is delivered from the dryer. This vapor condenses at room temperature and provides a conditioning effect because the cloth will always contain a desirable residual moisture content. Harshness and brittleness of the fabrics, caused by overdrying, are thus eliminated, and the cloth is delivered with a lofty finer hand.

The amazing efficiency of this machine can only be accomplished by a combination of superheated steam and the high velocity at which this superheated fluid impinges on the fabric. In static conditions, for instance, superheated steam has practically no effect, even at high temperatures.

The patented nozzles of the Vapojet, which provide the high velocity necessary, are 3/16-inch from the cloth. In conventional type nozzle type dryers, the nozzles must be several inches from the cloth so that clearance will be provided for the rails when width changes are necessary.

The first installation of the pre-dryer and overfed tenter was exhibited to the press at the Cliffside Dyeing Corp. in Paterson, N. J. This complete Hunter range consists of a pad, two pre-dryers, a three-section overfed clip tenter, a curing oven, a cloth conditioner and a batcher. The complete process of impregnating, drying, curing, conditioning and batching is accomplished continuously. (Item D-1)

Gatlin Tiphook



A harness strap tiphook designed for use with seven-eighths of an inch and one-inch width strapping on any and all looms that employ the roll top system with regard to harness assembly has been invented by L. E. Gatlin of Newberry, S. C. The patent has been applied for.

According to Mr. Gatlin application of his tophook saves 40 per cent of the cost of strapping. It eleminates the use of the metal T-hook and is designed to be used with any standard hook. Another important factor concerning application of this system is that it enables one to make fast and accurate harness adjustments and thereby save considerably time and effort. It is said to be particularly advantageous for use on wide looms that use as many as eight straps because the adjustments that are made from time to time on wide harness are extremely difficult due to the fact that there is very little allowable motion because of the rugged construction of the wide harness frame. The Gatlin tiphook eleminates this trouble because the very principle of its application simplifies this procedure and assures a positive "can't slip" assembly.

The new tiphook is made of 16-gauge cold rolled steel and has a commercial cadmium plating that will withstand any moisture condition to which it might be subjected. It is rust proof and has a test pull of 100 pounds. The Gatlin tiphook is said to reduce the length of strapping used from 17 to 10½ inches.

Distributor for the new item is Karl F. Gatlin of 1733-A Matheson Ave., Charlotte, N. C. (Item D-2)

Hartofix

Hart Products Corp. announces Hartofix, a new cationic dye-fixing agent. It is claimed that Hartofix imparts water resistance to direct dyeings on cotton, rayon and other cellulosic fibers. This dye fixative, available as a straw colored viscous liquid, may be

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it's the "heart of the hide"
CHECK STRAP
Guaranteed to outlast all others . . .

Estab. 1880
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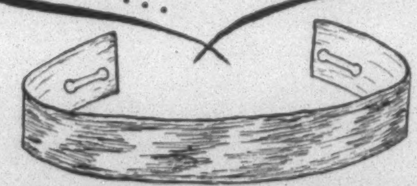

Red record cards are shipped with each order — to prove longer life.

BRIDGE "heart of the hide" CHECK STRAPS are guaranteed to out last all others because they are made from only heart of the hide leather . . . the finest there is . . . heavy center cut steer hide, specially pre-stretched. ALL BRIDGE Check Straps are cut to your exact measurements.

ORDER A TRIAL LOT — CHECK FOR YOURSELF

JOHN BRIDGE SONS
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Cut off here, and attach to your order.

Send us a trial order of .... quantity BRIDGE hair on "heart of the hide" Check Straps, of the following dimensions—

Length ....″ Width ....″ Thickness ....″ Size of slot ....″

Name .... ¼″ ☐

Company .... Check which

Street .... 9/32″ ☐

City .... State ....

used either alone or in conjunction with copper salts to increase the water and washfastness of a wide range of direct dyes. Examples of fields of application are:

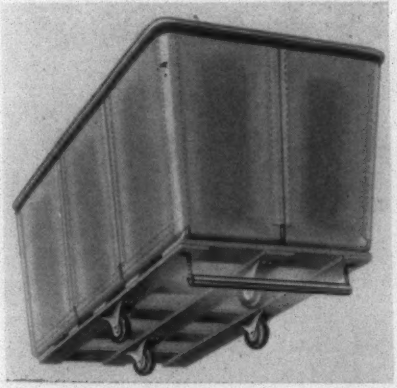
(1) Elimination of bleeding and staining of prints during wet handling and wet processing. (2) Elimination of perspiration staining on dyed or printed fabrics. (3) Imparting water resistance to dyed yarns for knitted or woven sportswear. (4) Improvement of wash resistance of cotton and rayon yarn for hose. (5) Elimination of staining of discharge prints where ground has been dyed with a direct color. (6) Used in dyeings or prints when applying resin finished from warm baths.

Samples and technical data sheets are available from Hart Products Corp. or on request to this publication. (Item D-3)

R/M V-Belt Catalog

A new fractional horsepower V-belt catalog for use in servicing light duty applications has been announced by Raybestos-Manhattan Inc., Manhattan Rubber Disvion. In this catalog belts are listed according to the new industry-standard numbering system. Various type machines are listed together alphabetically by company or trade names for convenience in determining the proper belt. Copies of the catalog are available on request. (Item D-4)

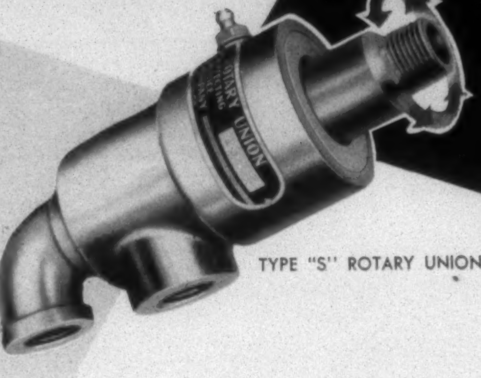
New Doffer Truck Magnet



A new doffer truck magnet has been developed by the Eriez Mfg. Co. for picking up tramp iron as the truck moves around the textile mill. This new tube-type permanent magnet is attached to the under side of the doffer truck and permits collection of traveler rings and other iron and steel pieces as the truck passes. These non-electric tube magnets pick up and hold all iron and steel pieces by a strong magnetic sweeping action. The hanger brackets are spread slightly to remove the magnetic unit for cleaning. The magnetic tube is easily cleaned by wiping with a cloth and then put on the brackets attached to the truck.

The collection of traveler rings is a necessity as the floors in the spinning rooms of textile mills must be kept highly polished and cleaned. If traveler rings are permitted to remain on the floor, they cause scratches and become inbedded in the surface and must be manually removed.

The unit consists of a one-inch diameter aluminum tube within which are the Alnico V permanent magnetic elements. Steel mounting pins extend from each end of



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a revolving steam connection

TYPE "S" ROTARY UNION

PIPE SIZES 1/4" THROUGH 3"

"Not One Burp All Year"

This was the pleased and surprised remark of a new customer who installed ROTARY UNIONS on his slashers. We were pleased but not surprised because ROTARY UNIONS are *guaranteed* to give perfect service for one year without mechanical maintenance of any sort*, and many run three years or more without any attention.

Get rid of your Saturday morning repair headaches and week-day tinkering and downtime on old fashioned stuffing boxes, packing joints, or ordinary steam connections. Install ROTARY UNIONS on your slashers, dry cans, calenders, printing, or coating machines, and you will be pleased and surprised too.

Contact our nearest office or write Dept. 4B for our Catalog.

*Make good on this guarantee is requested on less than 8 out of every 1000 units sold.

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332 Atando Avenue (Home Office and Factory) Charlotte, N.C.

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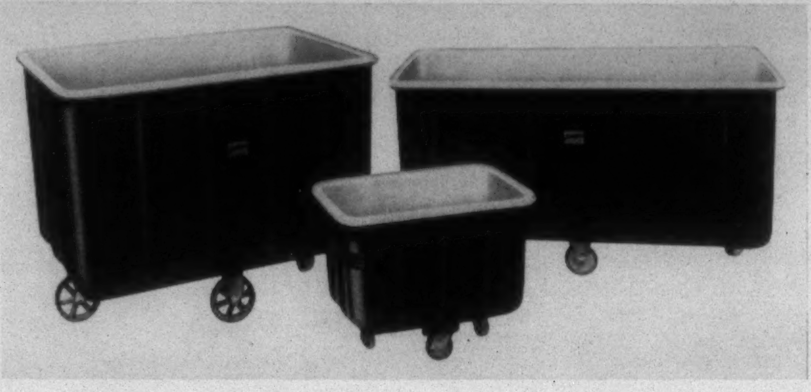
the tube. Adjustable brackets are furnished with each magnet. The unit is made in five standard sizes: 12, 16, 20, 24 and 28 inches. For further information use blank on Page 99. (Item D-5)

Rodney Hunt Publication

The Rodney Hunt Machine Co. recently distributed to the industry the first issue of its new house organ, *Rodney Hunt's Orange Peel.* The new house organ will be published every other month, the company reveals, adding that editorially it will attempt to treat each department of the business with one article in each issue, and carry some special story about Orange, Mass., with which Rodney Hunt has been identified for 113 years. Those wishing to be added to the mailing list for Rodney Hunt's new house organ may do so on request to the company or to this journal. (Item D-6)

Laminex Development

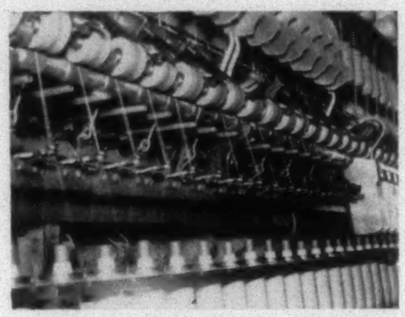


United States Supply Co., the original distributors of Laminex fiberglas products, announce that now Laminex tanks and trucks may be fabricated without mold charge in any size to meet customers requirements. These products are straight-sided and square-cornered with pressure bonded joints and reinforced where required. Included in the Laminex line are the regular exclusive patented method molded tanks, trucks, tubs, etc., in a complete range of sizes and types.

Non-corrosive inside and out, Laminex tubs, tanks and other containers will withstand chemical attack from all commonly used acids in normal concentration. They are electrically non-conductive and will withstand temperatures above boiling point. Extremely light in weight (tank weighs only about 60 pounds) and strong, they have walls of uniform thickness with reinforced built-in vertical ribs and rails for maximum strength. Impact resistance is very high and, in case of accident, the Laminex container can be easily and quickly repaired by unskilled labor on the spot, at room temperatures. No nuts or bolts are required in manufacture.

United States Supply Co. will contact textile finishers in the Northern area from its East Providence plant and the Southern area will be handled through George A. Howell Jr., 211 Rockingham Road, Rockingham, N. C. (Item D-7)

Thoma Cleaner



Stellite American Corp. announces that it has been appointed sole agent of the Thoma Co., Zurich, Switzerland, manufacturer of pneumatic cleaners for ring spinning frams, including the distinctive Thoma cleaner. Stellite states that there are almost 2,500,000 spindles all over the world equipped with the Thoma cleaner providing tangible proof that spinners consider this suction device as a necessary aid in obtaining a high quality product. Stellite claims special advantages of the Thoma cleaner as follows:

(1) The perfectly balanced fan in the filterbox is coupled directly with the axle of the motor. Thus, the device is secure and V-belts are eliminated.

(2) In spite of the low power consumption the perfect functioning is guaranteed.

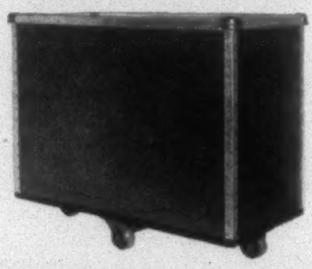
(3) The air sucked into the filterbox by the fan is exhausted towards the floor in order not to interfere with the air conditioning plant.

(4) In our newest type of filterbox the motor is placed in the suction air current and, therefore, is continually cooled. This has a very favorable influence on the efficiency of the fan.

(5) We install the central duct under the roller beam wherever possible in order to avoid the elevation of the creel. Therefore, the central duct enters directly into the filterbox, and the elimination of the curved connecting duct increases the efficiency of the suction.

(6) If there is not sufficient space to place the filterbox on the floor, we solve the problem by fitting it into the creel. Not one spindle is lost; it is sufficient to set five or

EXCEL Keeps Your Production Rolling
24 TRUCKS For The Textile Industry



Made of ¼ inch Hamptonite Fibre with slatted, solid wood, or metal bottom and heavy duty galvanized or Stainless Steel top rails. This truck is securely riveted throughout with solid rivets and casters are *bolted* onto trucks. This No. 2300 has no center band to catch under ring rails.

The Excel
No. 2300 Hamptonite Truck

Also:
No. 100 Loose Doff Box
No. 200 Doff Box Frames
No. 300 Doff Truck
No. 400 Slatted Yarn Truck
No. 500 Metal Yarn Truck
No. 600 Slatted Conditioning Truck
No. 700 Waste Can Truck
No. 800 Platform Truck
No. 900 Metal Conditioning Truck
No. 1000 Fibre Truck
No. 1100 Steel Lap Truck
No. 1200 Utility Fibre Truck
No. 1300 Utility Metal Truck
No. 1400 Comber Lap Truck
No. 1500 Pin Board Truck
No. 1600 Bale Opening Truck
No. 1700 Cone Truck
No. 1800 Beam Truck
No. 1900 Sliver Can Truck
No. 2000 Swing Bed Doff Truck
No. 2100 Battery Filling Truck
No. 2200 Rack Truck
No. 2400 Stainless Steel Dye House Truck

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Representatives

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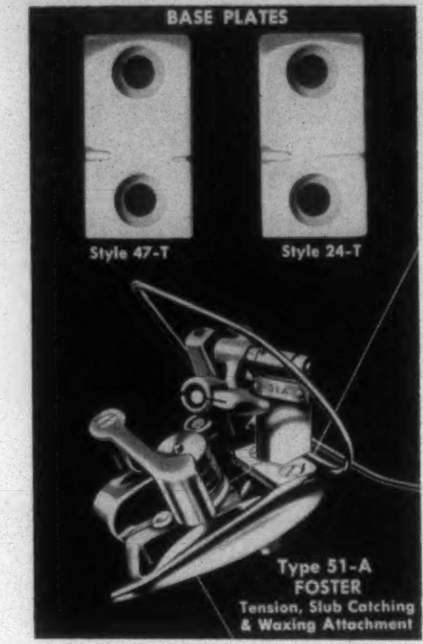
EXCEL TEXTILE SUPPLY CO.
"Excel Trucks Excel"
LINCOLNTON NORTH CAROLINA

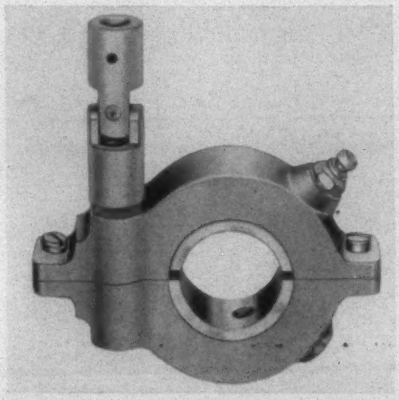
six bobbins in order to obtain the necessary space for the mounting of the filterbox. (Item D-8)

New Ceramic Base Plates



Foster Machine Co. announces that it is now equipping its 51-A tension, slub catching and waxing attachment, used on its Model 102 winder, with ceramic base plates. These plates are made in two styles, 47-T and 24-T as illustrated, and tests have shown that they are much more resistant to the cutting action of worsted and other types of yarn than hardened steel—that they will last four or five times as long. The plate is attached to the slub catcher underneath the slub catching blade. The yarn enters through the narrow groove in the plate, passes under the blade and leaves through the wide groove in the plate. The automatic inspection thus provided is reported to be very efficient in breaking out long cigar-shaped slubs and to be very valuable when making high-quality fabrics. (Item D-9)

Small Worm Drive Assembly



The Durant Mfg. Co. has announced development of a small, right-angle worm drive for application on textile machinery in cases where a worm take-off drive is required. It is designed to fit shafting from

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Coppersmithing
Cowl Ventilators
Cylinders
  Spinning
  Spooling
  Twisting
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Dye Kettles and Vats (New)
Dry Cans
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Size Kettles
Tanks
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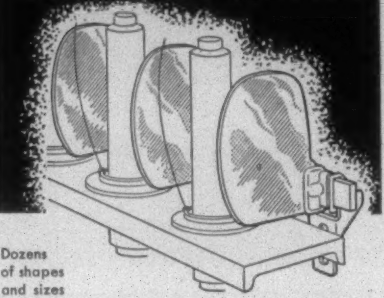
SPARTANBURG, SOUTH CAROLINA, U. S. A.



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522 WEST PEACHTREE STREET, N.W.
ATLANTA 3, GEORGIA

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912, March 3, 1933, and July 2, 1946.

Of Textile Bulletin, published Monthly at Charlotte, N. C., April, 1953.

State of North Carolina

County of Mecklenburg

Before me, a Notary Public in and for the state and county aforesaid, personally appeared Junius M. Smith, who, having been duly sworn according to law, deposes and says that he is the Business Manager of Textile Bulletin and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Acts of March 3, 1933, and July 2, 1946, embodied in Section 233, Postal Laws and Regulations, to wit:

That the names and addresses of the publisher, editor and business manager are:

Publisher, Clark Publishing Co., Charlotte, N. C.; editor, David Clark, Charlotte, N. C.; managing editor, David Clark, Charlotte, N. C.; business manager, Junius M. Smith, Charlotte, N. C.

That the owner is: Clark Publishing Co., Charlotte, N. C.; David Clark, Charlotte, N. C.; Aileen B. Clark, Charlotte, N. C.

That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

(Signed) JUNIUS M. SMITH,
Business Manager.

(Signed) MARGARET L. ROBINSON,
Notary Public.

(My commission expires March 25, 1954.)

Sworn to and subscribed before me this 12th day of January, 1953.

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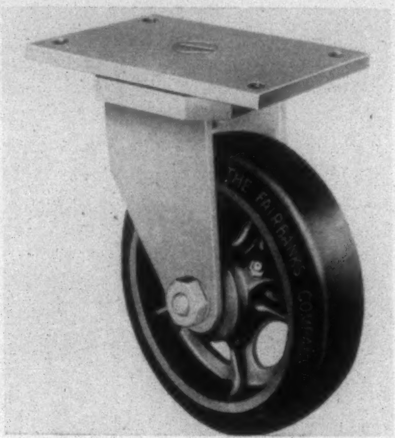
three-eighths of an inch to one-inch in diameter—is compact, with no external projection of the worm beyond the small housing. The worm drive incorporates a locking ball drive so that the entire assembly can be placed on the shafting, closed in by bearings without disassembly of the shaft, or drilling of the shaft. Convenient Alemite grease fitting makes for easy lubrication. It is manufactured only in a reduction ratio of one turn of the universal joint to ten turns of the driving shaft. Complete details are available from the manufacturer. (Item D-10)

Series 27 Casters



The Fairbanks Co., manufacturer of casters and trucks, have just announced a new Series 27 steel swivel casters. Available in sizes six-inch, eight-inch and ten-inch, the Series 27 casters are double race swivel of heavy steel plate welded construction. The large diameter outer ball race, precision machined with provision for pressure lubrication, combined with a Timken thrust bearing, to relieve the load on the countersunk king-bolt, insure easy swiveling under the heaviest loads. The caster is standard with a replaceable bolt axle. It is available with semi-steel roller bearing wheels and molded plastic wheels in the six-inch size and with semi-steel roller bearing wheels, vulcanized rubber-tired roller bearing wheels and molded plastic wheels in the eight and ten-inch sizes. Series 37 heavy duty rigid casters that match the over-all height of corresponding Series 27 casters are also available. (Item D-11)

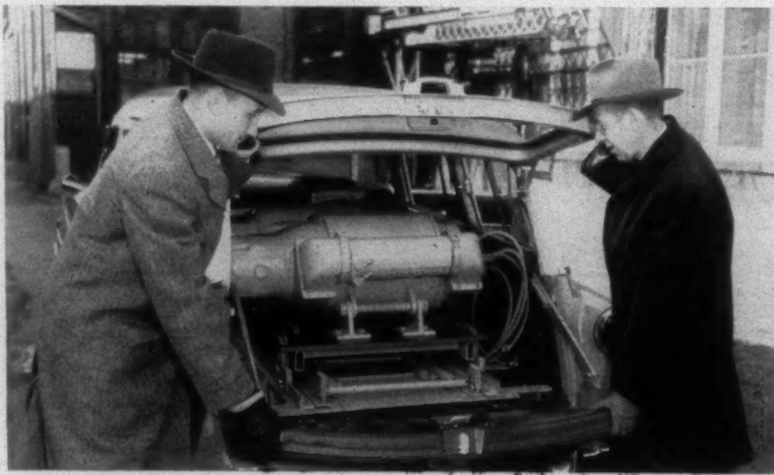
Fork Truck Load Stabilizer

An hydraulic-powered load stabilizer, an attachment for Elwell-Parker fork trucks with capacities up to 6,000 pounds, has been introduced by the Elwell-Parker Electric Co. Elwell-Parker is represented in the Carolinas by Engineering Sales Co. of Charlotte, N. C.

The unit is specially designed for safe transportation of unstable and semi-stable loads; it is also designated for stable loads which are subject to rough travel where they might be bounced off the skid or pallet on which they ride. In addition to carrying loads more safely, the stabilizer will allow fork truck operators to stack at great heights with maximum safety.

Fork trucks, which accommodate the stabilizer, are standard vehicles; the only alteration is to the hydraulic system to regulate the operation of the attachment. The shape or size of the stabilizer plate may be altered to meet specific loads. Usually, the plate is faced with steel although it may be faced with rubber or wire mesh if desired.

The distance between the forks and the stabilizer plate is 41⅝ inches minimum, 75 inches maximum. The stabilizer is powered by a hydraulic cylinder with a pair of telescoping guides to insure smooth operation plus rigidity. The control handle of the unit is located adjacent to the opera-

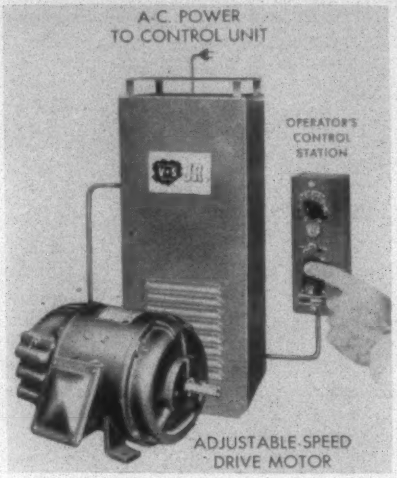


ONE WAY TO SHOW YOUR WARES IS TO HAUL THEM TO THE POTENTIAL CUSTOMER, and that is what Reliance Electric and Engineering Co. of Cleveland, Ohio, did recently with its new air and water-cooled motors designed to drive the new Saco-Lowell Gwaltney spinning frames. For on-the-spot mill demonstrations of the new electric motors, Reliance outfitted the rear compartment of a station wagon with special mounting rails and portable motor stand, and added an engine-driven generator to supply the necessary power. L. F. Blackwell *(left)* of the Reliance sales staff and Kenneth Ertell, advertising manager, are pictured making a last-minute check on the portable installation before it hit the road.

tor's right hand; the pressure gauge is mounted on the cowl of the truck in perfect view of the operator. Clamping pressure can be varied to suit the product being handled within limits of 150 to 1,350 psi. An hydraulic pressure blow-off valve is part of the system to prevent crushing the load due to excessive clamping after the pressure has been set.

Additional information about the hydraulic-powered load stabilizer may be had by using request blank on Page 99. (Item D-12)

V*S Jr. Speed Drive


A-C. POWER TO CONTROL UNIT
OPERATOR'S CONTROL STATION
ADJUSTABLE-SPEED DRIVE MOTOR

Developed to economically meet the textile industry's increased need for adjustable speeds in the lower horsepower ranges, an improved, all-electric adjustable-speed drive of from three-quarters to three-horsepower is announced by the Reliance Electric & Engineering Co. The new electronic-type variable-speed drive, called the V*S Jr., is designed to take care of a steadily growing number of textile-processing operations having these relatively low horsepower requirements.

First introduced in 1950 as smaller, lower-cost version of the packaged Reliance V*S drive, the new "junior" unit incorporates several design refinements. It is also now available in five sizes—three-quarters, 1½, two and three-horsepower ratings—giving many textile mills broader opportunities to increase output, trim costs, and improve product quality.

Providing stepless adjustable speeds from a.c. circuits in the range of three-quarters to three-horsepower, this newly improved variable-speed drive is therefore said to supply a more economical answer electrically to the problem of securing greater speed-changing flexibility, operational versatility, and control convenience in powering a wide variety of equipment.

Applications to date include such units as conveyors, beamers, cloth inspection tables, small looms, ribbon-making machinery, small slitting machines, dye jigs, synthetic fiber take-up stands, and wet and dry finishing equipment of all types.

The Reliance V*S Jr. is based upon the same variable-voltage control principles used by the manufacturer 15 years ago in pioneering its V*S drive—the original all-electric packaged drive—in the larger horsepower sizes. A constant torque variable-horsepower drive, the new unit operates at speeds of from 270 to 2,300 r.p.m., and as low as 75 r.p.m. for setting-up operations, light loads or intermittent duty. Its components are a drive motor, the operator's control station, and the control unit.

The drive unit is the Reliance V*S motor, designed specifically for adjustable-speed service, available in ratings of three-quarters, one, 1½, two and three-horsepower. The operator's control station, housed in a compact, conventional (N.E.M.A. No. 1) enclosure, provides "start-stop" buttons, a "jog-run" selector switch, and a speed adjustor.

The control unit, mounted in a compact steel cabinet, requires no attention from the machine operator; it may be located on a wall or column in the plant area where it is to be used, in the base of the driven machine, or in a remote location. All three components may be closely associated or widely separated as optimum equipment efficiency may dictate.

Operating from a plant's incoming a.c. power supply, the Reliance V*S Jr. provides a number of notable operating features. Among the more important ones are: direct application of power to equipment; conveniently centralized control; smooth stepless starting; controlled acceleration; wide speed range; stepless adjustable speeds; unlimited speed changes; jogging, inching, creeping; speed setting before starting; quick, smooth stopping, and fast, smooth reversing.

To meet requirements posed by special equipment applications or processing conditions, the drive motor is also available with all types of enclosures and mountings. In addition, certain optional equipment and accessories may be obtained. These include three types of control stations: (1) foot-pedal operated, for starting, stopping and speed control; (2) explosion-proof, for use in hazardous atmospheres; and (3) reversing drum-switch, which provides forward and reverse functions with speed control. Other optional units available with the drive are gearmotors in single, double and triple reductions for lower than standard operating ranges, and factory-mounted speed indicators. (Item D-13)

Mona Technical Bulletins

Mona Industries Inc. recently made available to the industry two new technical bulletins, 208 and 209, describing respectively its cotton detergent, Monaterge M, and its textile starch stabilizer, Monaloid.

Mona Technical Bulletin 208 tells how Monaterge M performs an exceptional job in detergency on gray cotton goods and gray cotton-rayon mixtures, assisting in the production of cleaner cloth in the caustic scour, the straight scour or in the caustic section of a continuous peroxide bleaching range.

Technical Bulletin 209 outlines the method by which Monaloid prevents the gelling of starch dispersions and also how Monaloid improves starch mixes in many ways. Copies of the Mona bulletins may be obtained on request. (Item D-14)

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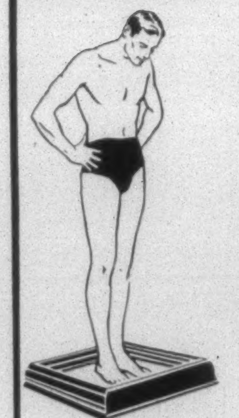


Serving The Textile Industry

Use Of Industrial Chromium Plating For Machine Parts

By W. F. WALTON, Walton and Lonsbury

THE USE OF INDUSTRIAL CHROMIUM PLATING on textile machine parts has fast become a recognized value. In the past 25 years it has spread from a few progressive mills to its present widespread use on the original specifications of new equipment and replating programs. At the same time, much has been learned by the plating industry regarding methods which would produce the best results. During the past few years, great strides were made as a result of restrictions and shortages of materials. Extended life given machine parts, along with a minimum of maintenance care, was of tremendous value to mills in saving time and cutting costs.

Chromium plating is an electroplating process done by special equipment, which necessitates the parts being forwarded to the plater. The success of the application depends entirely upon the ability and equipment of the plater. There is no substitute for experience in this field.

Different Types

Chromium in itself is a metallic element and is not alloyed with any other metal to obtain the required plated surface. There are several types of chromium plating which, unfortunately, carry the same general name. Strict care must be taken to draw a definite distinction between industrial "hard" chromium plating and "bright" or "decorative" chromium plating. Industrial chromium plating is practically always applied direct on the base metal in sufficient quantities to give protection against wear or corrosion or both. Decorative chromium plating is that which is commonly used on automobile parts, household utensils, and similar objects. Its purpose is to improve appearance only. It is usually applied over undercoatings of copper or nickel, depending upon the base metal. The chromium coat is very thin and has practically no wear resistance.

In purchasing industrial chromium plating, it is important to be certain that the supplier know exactly what is needed so that the job may be engineered properly. Too often the plater is not informed why the part is being plated, with the result that the type of plating applied is not what is needed. Naturally, such a job will not stand up in service, the money is wasted, and the user is disappointed. All mills do not require the same contact, varying from soft cotton material, which has very little wearing action, to the rayon and other synthetic type threads, which have great abrasive action on machine parts at points of contact.

Different Uses

Since the surface, after plating, will duplicate the surface before plating, it is important that the base metal be properly prepared. Sometimes this requires a mirror-like surface, which is difficult to produce and is costly. If the mill does not require a mirror surface, much can be saved by eliminating or minimizing the cost. Opinions differ from mill to mill, and often within two departments of the same mill, as to what actually constitutes a highly polished surface. Ordinarily, it is a matter of comparison with some other surface which accounts for the wide point of view. It is important to note that the cost of producing a mirror finish may represent more expense than the actual plating.

The purpose of the chromium surface may be to overcome corrosion, in which case the amount of plate necessary could be less than that required for wear resistance. Here is another point where cost can be saved, for the additional plate would be entirely unnecessary.

Metallic chromium is the hardest known commercial metal that can be electroplated, and it is from this characteristic that it receives its principal use. Being hard, it is brittle and will not withstand much impact. It is impervious to all alkaline solutions, and can be applied to practically all metals. However, lead and aluminum are not considered satisfactory bases. Cast iron is difficult to plate. The wear resistance of a plated surface varies, however, in accordance with the thickness of the chromium applied as well as the methods by which it is applied. The common statement that chromium is no harder than the surface to which it is applied is not correct unless speaking of impact. Then it is a case of the underlying metal giving way.

Life Increased

It is not at all uncommon for the life of a particular part to be increased three to ten times through the use of chromium plating. This is particularly true of parts receiving frictional wear, where, due to the hardness and the low coefficient of friction, the chromium plated surface stands up a great deal longer than an unplated part. Then many of these parts can be replated and restored to use several times at great saving to the mills. Many of the users of chromium plated parts have a regular replating program organized to handle this detail.

The only common corrosive agents that will seriously attack chromium are hydrochloric (muriatic) acid and some of its salts. Warm sulphuric acid affects it to a lesser degree, but where only dilute amounts are present the plate will afford protection against corrosion. Chromium is unaffected by most other acids or alkalies, including sizing and dyestuffs. The metal itself will not rust and imparts complete protection to underlying metals when properly applied.

Materials and liquids are easily wiped from it, leaving a clean surface which is important for a quick change of colors in dyeing or printing operations. The heat conductivity of chromium is very good, a characteristic making it useful in several in-

The plant of Walton and Lonsbury, Attleboro, Mass.

stallations of drying equipment where it has been found that extreme variations of heat and cold have little effect upon the plated surface. Chromium melts at 2,900° F. and resists oxidation to 1,150° F., making it valuable on any surface where there might be excessive heat.

Value Expected

In determining the value derived from chromium plated parts, too much emphasis should not be placed upon original cost, for there are many advantages that are not particularly apparent at the time of purchase. Usually, the most important advantage is the extended life of the plated part, but there is also lower maintenance cost and less frequent inspection for worn parts to be considered. The plated part is always protected against deterioration, whether operating or not. This is important on expensive equipment and parts which cannot be oiled. If the expected benefit will not exceed the cost of plating, there is obviously no advantage to be gained. However, this is the rare exception, for it is only necessary to extend the life of most parts a short time to pay the cost of plating.

There are so many various places where chromium can be used to advantage in textile mills that it is impossible to name them all all. However, a few include practically all rolls, thread guides, tension devices, leash rods, reeds, and virtually any part coming in contact with cloth or thread. It is a known fact that the plating of copper print rolls has been an accepted standard for years. It is reasonable to assume that there are thousands of other applications for chromium plating which remain unexplored. Its use can be adapted to many needs.

Plating Old Parts

The plating of textile equipment is not limited to new parts. In recent years, many cotton mills have found it necessary to chromium plate equipment at the time of converting machinery for rayon. However, before the old parts can be plated, it should be made certain that they are in first-class condition. Some mill men have the impression that to chromium plate a roll containing a worn groove will fill up this groove. Nothing could be further from the exact truth. Any cuts or dents in a roll will be there after plating, and, therefore, should be removed before plating. Were that not true, it would be impossible to plate copper print rolls and steel schreiner rolls.

Some of the old equipment was made of brass to resist corrosion. Naturally, these brass rolls cut very quickly without the protection of a chromium-plated surface. In replacing a roll of that type, it is possible to use an industrial chromium-plated steel roll for the chromium-plated surface will protect it from rust and make it more rigid.

In purchasing new equipment, careful consideration should be given to whether parts should be chromium-plated, and the recommendation of the mill engineering department should be followed. There are many angles to be considered for which that department will have the answer.

Be Specific

It is very important to the success of the application that the job be properly engineered. It is amazing the number of orders which are placed, merely stating, "to be chromium-plated," with no specifications. The same people would not for one minute place an order for "two pieces of steel" or "two pieces of lumber."

Another common mistake in purchasing chromium is to specify "heavy plate" or "flash plate," for there is a wide difference of opinion among platers in interpreting these instructions. For example, a man doing decorative plating, which normally calls for two minutes of chromium over nickel, would consider a 30-minute plate heavy, while an industrial chromium plater would consider that a light thickness of plate. The same comparison holds true on flash plates. This all has a definite bearing upon the costs of doing the job, because the purchaser may be comparing two quotations which are in no way comparable. The best method is to draw up a definite specification so that there will be no misunderstanding. This practice is followed by the larger textile equipment manufacturers and many of the mills which have learned the hard way.

Reichhold Research Expansion

Reichhold Chemicals Inc., has announced that it will extend its laboratory and research operations in Charlotte, N. C., for the purpose of more detailed service in production of finishing products. Herbert R. Helbig, general manager of the multimillion dollar plant, said the expansion will not entail further building. It will consist of adding specialists in the textile field and addition of complete equipment used in textile finishing research.

Reichhold Inc., which has headquarters in New York, also announced establishment of a manufacturing division at Ballardsville, Mass., to produce its extensive line of synthetic resins and basic industrial chamicals. Prior to building the Charlotte plant, concerned more with chemicals allied with the textile industry, Reichhold concentrated on synthetic resins and pigments required by the paint and varnish industry in New England.

The Charlotte operation recognizes the proportional increase of problems in textile dyeing and finishing to increase in the number and widely varying qualities of synthetic fibers, used alone or in a great diversity of blends in yarns for weaving and knitting.

Lurex Opens Atlanta Office

The Lurex yarn division of the Dobeckmun Co., Cleveland, Ohio, producer of Lurex non-tarnishing metallic yarns, announces the opening of a Southern district sales office in the Haas-Howell Building, Atlanta, Ga. The office will serve textile mills in Georgia, North and South Carolina, Alabama and Tennessee. Richard W. Hershberger, technical representative, will be in charge of the office. He has been associated with Lurex since late 1951, when he joined Dobeckmun's sales staff in Cleveland. He was educated at Kenyon College in Ohio, where he received a degree in business administration in 1947.

The Atlanta office will provide mills and manufacturers in the Southern states with information and assistance in processing Lurex with cotton, rayon, acetate, silk, wool and the new science fibers for a wide range of apparel and home furnishings fabrics.

Mr. Hershberger will work under the direction of Arthur Gould, Lurex product manager. Through the Atlanta office, the full facilities of Lurex development headquarters in New York will be made available to Southern mills for designing and styling Lurex yarns for any end-use.

Chapman Names Agent

Chapman Electric Neutralizer Co. of Portland, Me., for 50 years manufacturers of static eliminating equipment for industrial needs, announce the appointment of Louis P. Batson Co. of Greenville, S. C., as its representative for the sale of its product to the Southern textile trade. The

THE EDWARD J. McBRIDE CO. has moved into its new plant, located on a 12-acre plot at Wissinoming and Cottman in Philadelphia, Pa. While the new plant gives considerably greater area than the former McBride location at Adams and Leiper, it was said a major addition to the new plant will be started soon to provide still further expansion space.

The new one-story factory provides space for complete operations of the plant including a large bay area for welding and assembly operations. The other side of the plant will house machine operations necessary in the manufacture of creels, warp beams, flanges, rolls and stop motions. A two-story portion at the front of the new building is comprised of general offices, purchasing and engineering departments.

Batson organization believes that Chapman equipment offers the most practical, safe and effective solution of most static problems.

Sonoco Buys Plant

Sonoco Products Co., Hartsville, S. C., announces that it has agreed to purchase the plant at Akron, Ind., formerly occupied by the Tru-Temper Co. James L. Coker, Sonoco president, states that his firm will make spiral and convolute tubes at the new facility. Production is expected to start during the Summer. The property includes buildings with approximately 52,000 square feet of floor space and about eight acres of land. Herbert M. Byrd, an administrative assistant in Sonoco's engineering department, has been named manager of the Indiana plant. Mr. Byrd is a native of Darlington County, S. C., and is a graduate of Clemson College.

Hunter Names Southern Agent

The James Hunter Machine Co. of North Adams, Mass., has announced that it has signed a sales agreement and will be represented in 11 Southern states by the Marshall & Williams Sales Corp. of Greenville, S. C. This will be in addition to the Hunter staff representative, Carl Endlein of Atlanta, Ga. Marshall & Williams will sell the complete Hunter line of wet finishing and drying equipment, exclusive of woolen and worsted equipment.

The company advises that this move has been made to provide the Southern mills with additional engineering and sales service, which is required because of the broadened line of equipment designed for the cotton, rayon and synthetic finishing trades. The latest addition to this complete line of equipment is the Vapojet dryer which was announced to the trade for the first time on April 10 at a press luncheon in New York City.

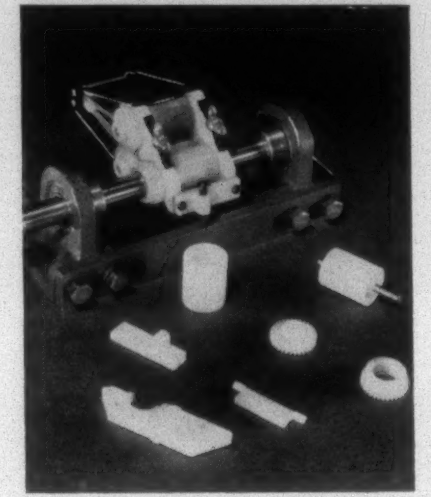
The Marshall & Williams organization is well qualified in this field through many years of manufacturing and selling tentering equipment. It is manufacturing exclusively the new overfeed clip which is an important component of the Hunter Vapojet machine.

Fred Land of Greenville is president of the Marshall & Williams Sales Corp. The vice-president is John Nash, who is also vice-president and sales manager of the Marshall & Williams Corp. of Providence, R. I. Ned Ford and Joshua Montgomery of Greenville are sales engineers for the concern.

Moreland Named Distributor

Moreland Chemical Co. of Spartanburg, S. C., has been named distributor in the Southern states for Colton Chemical Co. of Cleveland, Ohio, manufacturer of polyvinyl acetate products and polyvinyl alcohol. Through its distributors and sales agents it is now possible for the Colton Chemical Co. to insure customers of prompt attention from both a service and technical standpoint. Colton manufactures Vinac polyvinyl acetate emulsions and polyvinyl acetate in solution and solid forms. Other products include Vinol polyvinyl alcohols, Colfoam foamed insulation and various phenol-formaldehyde insulating varnishes.

Molded Nylon Gears, Bearings



Full-scale production of long-draft spinning units in which gears and bearings are being made of molded Du Pont nylon has been undertaken by Macdonald & Sons Inc., development engineers. The move was made after extensive trials with the nylon parts, in mills throughout the United States, England and Canada. Performance during trial installations indicated that nylon in these units will outwear previously used materials by several times.

Of interest to mill operators is the fact that individual units may be removed or installed without stopping the machine. The resilience of nylon permits this operation without damage to the gear teeth. Replacements are, therefore, possible in seconds with no down-time required. Like other textile applications involving the use of molded nylon, these long-draft spinning units require no lubrication. This eleminates the dangers of yarn contamination through oil or metal splinters.

It is expected that the Macdonald unit will reduce power requirements, due to the low coefficient of friction for nylon bearings and gears. The lighter weight of these units will also contribute to lower power requirements. Each weighs 4¾ ounces, or about 25 per cent of the weight of the replaced units. Considering that there are 200 to 400 long-draft units per machine and that textile mills generally use from 12,000 to 300,000 units, this power saving can be considerable.

Units are easily removed from the drive shaft simply by loosening two thumb screws. Spring-steel apron supports provide uniform tension, and the use of the gear drive principle assure synchronized apron travel. A six-spindle test section has been run for approximately 16,000 hours at from 4½ to 9½ times normal operating speed without lubrication of any sort. The 13 nylon parts in each unit are molded for Macdonald & Sons Inc. by Plastic Mold & Engineering Co.

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Eisenhower Given Miniature Dacron Bale

Representative Fountain (D., N. C.) March 30 presented to President Eisenhower the first bale of staple Dacron produced at Du Pont's new plant in Kinston, N. C. The miniature textile bale, small enough to be held in the hand, contained a window through which the white fiber could be inspected. The presentation was made at one of the luncheons to which the President has been inviting groups of congressmen.

The Dacron was produced March 23, when the first of six production units in the 40-million-dollar plant began operation. Five other units will be in operation by the end of the year. The 635-acre plant on the Neuse River in the Eastern North Carolina tobacco country marks the beginning of a new industry for the area.

March Rayon Shipments Up 15 Per cent

Shipments of rayon and acetate yarn and staple by United States producers to domestic consumers in March totaled 102,400,000 pounds, an increase of 15 per cent over the February shipments of 89,400,000 pounds, according to the *Textile Organon*, statistical bulletin of the Textile Economics Bureau Inc. Domestic shipments for the entire first quarter totaled 292,600,000 pounds, 18 per cent more than the 247,200,000 pounds shipped in the corresponding quarter in 1952. During March the over-all daily rate of production was slightly greater than in February. Producers' total stocks delcined to 75,000,000 pounds.

Production of viscose high-tenacity yarn last month was at an all-time high of 41,800,000 pounds. Shipments were greater than production and stocks at the end of March dropped to 5,300,000 pounds. The daily rate of output for regular+intermediate tenacity rayon yarn in March was identical with the February rate, but shipments continued to be greater than production and stocks declined to 32,500,000 pounds.

March shipments of acetate yarn were below production and stocks at the end of March rose to 24,500,000 pounds. A settlement of the strike at the plant of the largest producer of viscose staple+tow and increased production from

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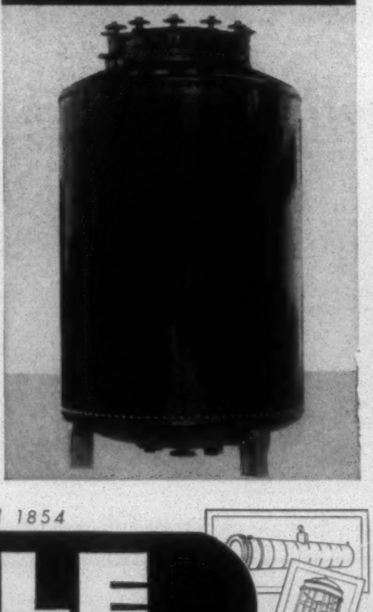

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two new plants brought about a marked gain in this category of yarn. The rate of output of acetate staple+tow during March was slightly below that of February.

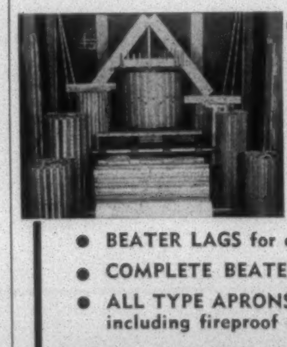
Imports of man-made staple into the United States during February totaled 6,358,000 pounds, an increase of 17 per cent over January, but well below the 9,447,000 pounds shipped into this country in February 1952. For the first two months of the year, man-made staple imports totaled 11,774,000 pounds as against 17,390,000 pounds in the corresponding months of 1952. Belgium was the principal supplier in the first two months, with shipments amounting to 29 per cent of the total received here. The next most important shippers were Norway with 11 per cent, Switzerland, the United Kingdom and Western Germany with ten per cent each, Cuba and the Netherlands eight per cent each, France seven per cent, Italy five per cent, and Sweden and Canada one per cent each.

The *Organon's* analysis of U. S. exports of man-made fibers and manufactures reveals that in 1952 the total value of such goods amounted to $205,745,000, a loss of nine per cent compared with the 1951 figure of $226,435,000. Export shipments last year, however, were still 16 per cent greater than the 1950 total of $176,811,000, nearly 14 times greater than the shipments of only $15,288,000 in 1939.

From the standpoint of poundage, the *Organon* estimates that during 1952 a total of 137,000,000 pounds of man-made fibers was exported in yarn or manufactures. This was one per cent below the estimated poundage for 1951. The *Organon* further estimates that of the total 1952 poundage, raw materials accounted for 36 per cent as compared with 46 per cent of the total in 1951 and 44 per cent in 1950. Semi-manufactured goods accounted for 55 per cent, and manufactured items nine per cent, in 1952.

The decline in value of exports of man-made fibers in 1952, according to the *Organon,* stems at least in part from the fact that average prices of yarn and manufactures, with some notable exceptions, were down compared to 1951 and the over-all average price was the lowest since 1949.

On specific groups of items in the export total, man-made filament yarns and monofilaments in 1952 were 15,335,000 pounds or 17 per cent below the 1951 figure. Staple and tow exports declined in approximately the same proportion. Because of classification changes, it is not possible to compare 1952 exports of most individual raw material items with those of a year ago. However, exports of tire cord and fuel cell fabrics declined to about 10,000,000



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pounds in 1952 as against 17,000,000 pounds in 1951 and 20,000,000 pounds in 1950.

Exports of broad woven piece goods, on the other hand, showed a substantial yardage increase over both 1951 and 1950. But in dollar terms, 1952 exports were three per cent under those of the preceding year.

On manufactured items of man-made fibers, a large increase was noted by the *Organon* in the underwear and nightwear section; 1952 exports were $1,614,000 above those of 1951. But nylon seamless and full-fashioned hosiery exports declined by $10,452,000 from 1951 to 1952.

On the import side of the picture, the *Organon* reports that the value of man-made fibers and manufactures received from abroad in 1952 amounted to $37,552,000, a decline of 28 per cent compared to the 1951 total of $52,110,000. The decline was more than accounted for in the fall of the value of raw materials, which in 1952 were imported to the extent of $29,940,000 as compared with $45,260,000 in 1951, a loss of 34 per cent.

On individual items, the value of staple imported in 1952 was 29 per cent below 1951. Imports of filaments and yarns were valued at only $730,000 in 1952 as against $4,378,000 in 1951.

In semi-manufactured goods, the *Organon* notes that there was very little change in 1952 imports from the standpoint of dollar value. In the latest year, these goods coming in were valued at $3,175,000 as against $3,310,000 in 1951. Values of finished goods, however, showed a noticeable increase in 1952, when imports amounted to $4,437,000 in value, an increase of 25 per cent over 1951. Items enjoying the largest growth were knit and crocheted glove and mittens as well as machine-made lace and lace articles.

In the four years from 1949 through 1952, the value of raw materials accounted for 59 per cent, 85 per cent, 87 per cent and 80 per cent respectively of total imports. Semi-manufactured goods represented 14 per cent, five per cent, six per cent and eight per cent, respectively, for the four years, while manufactured items accounted for 27 per cent, ten per cent, seven per cent and 12 per cent, respectively.

Analyzing U. S. Census Bureau figures on consumption of rayon and acetate in spinning of carpet and rug yarns during 1952, the *Organon* notes that while the poundage of man-made fibers used in that industry showed a decline last year, the proportion of blended yardage of rugs and carpets rose to 41.7 per cent as against 27 per cent in 1951.

Total poundage of rayon and acetate staple consumed

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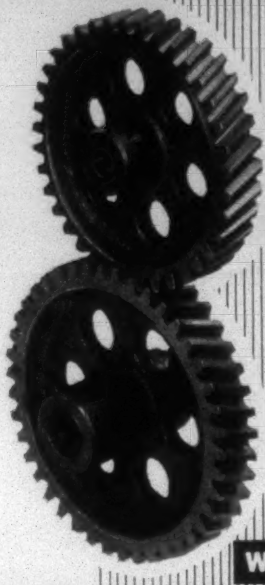

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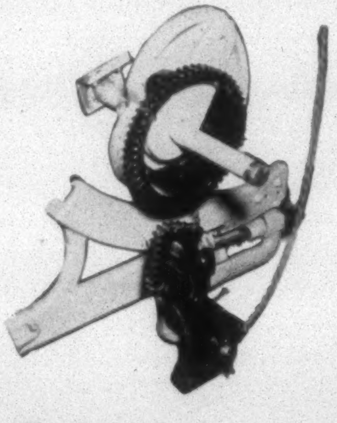

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by carpet and rug manufacturers last year was 24,751,000 pounds, a decrease of 25 per cent from the 1951 figure of 32,795,000 pounds. United States producers' shipments of rayon and acetate staple+tow to the industry totaled only 6,200,000 pounds as against 14,150,000 pounds in 1951. It appears, therefore, that the rug and carpet industry used imported staple in the amount of 18,550,000 pounds in 1952 as compared with 18,650,000 pounds in the preceding year. The magazine notes that these calculations cannot be exact since they do not take into account the stocks of staple held by the carpet manufacturers in unopened bales.

In 1952, a grand total of 158,882,000 pounds of all fibers were consumed in carpet and rug yarn production, a figure slightly in excess of the 1951 total of 157,433,000 pounds. Rayon and acetate's share of the poundage total last year was 15.6 per cent as compared with 20.8 per cent in 1951.

Even though the actual ratio of man-made fiber to wool poundage was substantially smaller in 1952, there was a large increase in the yardage of rugs and carpets containing some man-made fiber, the *Organon* points out. According to the Carpet Institute, 62,088,000 square yards of wool and blended carpets were produced in 1952, an increase of 2½ per cent over the previous year. The average carpet face yarn in 1952 was 2.56 pounds per square yard as compared with 2.60 pounds in 1951. Assuming that the average weight of the all-wool and blended carpets was the same, the 1952 square yardages produced in all-wool were 36,000,000 as against 44,300,000 in 1951. On the other hand, rayon or acetate and wool blends were produced to the extent of 25,500,000 square yards in 1952 as against 16,300,000 square yards in 1951.

Apparatus Reveals Best Cotton To Mercerize

Versatile, new apparatus for the experimental mercerization of cotton yarn in skeins makes is possible to tell in advance which types or varieties of cotton are the most suitable for commercial mercerization. The apparatus was constructed and is in use by researchers headed by Charles F. Goldthwait of the Bureau of Agricultural and Industrial Chemistry at the Southern Regional Research Laboratory in New Orleans, La.

Mercerization gives cotton permanent luster, makes it easier to dye, and produces brighter and fuller shades. Foreknowledge of the comparative responses of different cottons to mercerization, besides aiding buyers and spinners in purchasing cottons to be used for mercerized end-products,

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would guide breeders in making their selection, especially in connection with the development of new cotton varieties.

The apparatus consists of two balance-type machines, suitable for treating skeins weighing up to one ounce, and a frame-type machine, capable of treating lots weighing up to three-fourths of a pound.

In one of the special techniques, the tension developed in the yarn during treatment is measured with a strain gage. The tension measurement has been useful in bringing out difference in swelling capacities of different caustic soda soutions, in evaluating penetrating agents for use in caustic, in routine comparisons of yarns, and in determining the effects of different yarn constructions. Developed tension, besides affording a convenient numerical value to help show what happens during a particular mercerization process, should, when better understood, help in characterizing cottons.

Will Study Mercerization Of Raw Cotton

A contract for a 2½-year research study on mercerization of raw cotton without tension has been awarded to the School of Textiles at North Carolina State College by the Research and Marketing Administration, U. S. Department of Agriculture. This was announced recently by William A. Newell, research co-ordinator of the School of Textiles, who said the contract will be supervised by the Southern Regional Research Laboratory of the U.S.D.A.

"The study," Mr. Newell stated, "will be three-fold: determination of the best method of mercerizing raw cotton without tension, determination of the best way to process cotton so treated on conventional textile machinery, and a study of the properties of treated fibers and of yarns and fabrics made from the treated fiber." The work will be carried out at the School of Textiles under the supervision of Henry A. Rutherford, head of the chemistry and dyeing department, and J. F. Bogdan, head of the processing research department.

"Cotton," Mr. Newell explained, "is normally mercerized in yarn or fabric form. In the mercerization process as carried out at present, yarn or fabric is held under tension while being treated with caustic soda. The effect of the treatment is to increase the strength and improve the luster of the yarn or fabric.

"It is felt that mercerization of raw cotton without the use of tension will produce a cotton fiber with modified properties that may permit cotton to enter new uses. The modified fiber properties produced by the process may also improve receptivity to dyes and wet-finishing treatments."

Controls Available For Any Location

Satisfactory controls are now available for any location in modern dyehouse operation, and it is up to management at to which type they prefer and how much capital they wish to invest. This was the opinion expressed at Chattanooga, Tenn., by W. H. Ridley, manager of the textile division of Foxboro (Mass.) Co., who spoke on "Control Instruments and Their Application for Modern Dyehouse Operation" at the technical session of the Winter meeting

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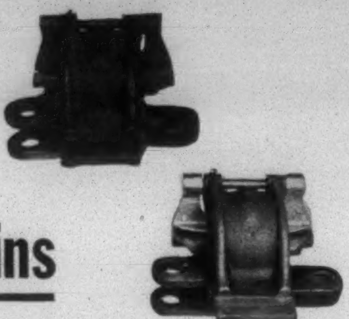

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Mr. Ridley used slides and photographs to illustrate portions of his technical review. He noted that it was generally agreed that instruments for continuous dyeing should be located on the floor, in control cabinets near the dyeing ranges.

However, in the case of batch dyeing, the speaker pointed out that there are three choices. He listed these as: (1) controls immediately beside the machine for individual control of each unit; (2) controls, cabinet-mounted in groups of four, six or eight in the dyehouse, for group supervision and operation; (3) remote control in the dyehouse office, in attractive floor-mounted cabinets, sometimes 200 feet away from the kettles.

In modern dyeing, Mr. Ridley continued, recording control instruments are essential. Chart records are used in many mills today and are reviewed carefully by supervisory personnel. Initial cost of control instruments, it was pointed out, is far less than machinery costs, being perhaps 1.2 per cent for all industries. Competition in textile dyeing, as in the oil and chemical industries, has made control instruments necessary, he stressed.

Industries today are being advised to purchase complete integrated control systems and to train operators, supervisors and mechanical departments in use and maintenance of such equipment.

Absolute necessity was cited as the most important reason for the use of these instruments. It is no longer possible, without the aid of these instruments, to perform all the necessary functions to obtain proper dyeing, particularly on synthetic mixtures, he said. Mr. Ridley then cited a number of examples, including the inability to make checks on temperatures, pressures, flows, and levels as well as to make adjustments, unless there are controls. The quality of the product is affected greatly, he emphasized.

Economy of materials and easing of the operator's task also were cited, Mr. Ridley pointing out that operators do not get as tired during working hours, and, as a result, do better work.

TV Show To Feature N. C. Textile School

The School of Textiles at North Carolina State College will participate in a 30-minute program to be presented over the C.B.S. television network sometime this Fall, according to Malcolm E. Campbell, dean. The School of Textiles has been selected as one of 22 college and universities

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in the U. S., each one of which will be the subject of one program in the C.B.S. Sunday-afternoon series to be entitled "The Search." Purpose of the series is to dramatize the contributions of higher education to individual and national welfare.

The program, to be produced on film, will describe the manufacture of yarns and fabrics and how the school carries out its training and research program in relation to the manufacturing processes. School personnel will participate in the program, which will have no professional actors. The network plans to spend about $25,000 to produce each program.

The N. C. State College School of Textiles was selected to participate in the series following a recent visit by the producer of the series, Roy Lockwood of C.B.S. Mr. Lockwood was on an extended tour of colleges and universities all over the U. S. seeking outstanding educational and research programs to be subjects for the series.

An advisor on the script, Vernon Cooper of Bates Mfg. Co. also recently visited the school, and C.B.S. writers are expected in Raleigh soon to organized the script for the program. The writers will be followed by the producer, director, and cameramen for actual production of the film. It is believed that the actual filming will take place sometime this Summer, and the showing of the program will take place this Fall or Winter.

Program For Asheville Management Conference

Fifteen outstanding industrial leaders will lead discussions at the Southeastern Management Conference sponsored May 7-8 at Battery Park Hotel, Asheville, N. C., by the Society for Advancement of Management.

On Thursday, May 7, Alvin Wingfield Jr. of the Royal Typewriter Co. starts the conference, and his subject is "The General Economic Outlook." Flem Winders, assistant to the president, Tennessee Eastman Co., rounds out the morning session with a practical talk on human relations.

H. K. Hallett, vice-president, Kendall Mills cotton mill division, speaks at the Thursday luncheon session, and his subject is "The Textile Industry—Opportunity for Growth and Expansion in the Southeast." Mr. Hallett is president of the North Carolina Textile Manufacturers Association and was recently elected president of the American Cotton Manufacturers Institute. "Paperwork Simplification" will be discussed by Ben Graham of Standard Register Co. at the first afternoon meeting. Another office subject, "Office

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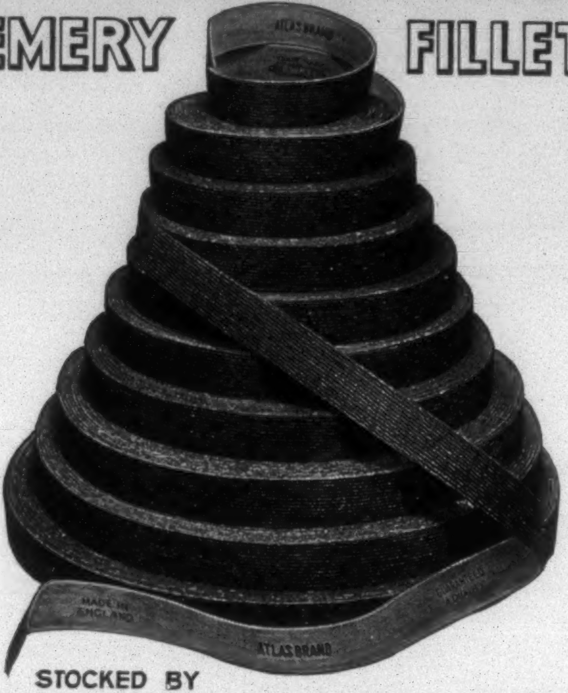

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Methods and Measurements," will be presented by Frank Middleswart, supervisor of management engineering, E. I. du Pont de Nemours & Co., in a later afternoon meeting. Henry E. Ford, director of development for the Du Pont Co., closes the first day's events with a talk after dinner.

On Friday morning, Rev. Clifford H. Peace, R. J. Reynolds Tobacco Co., has as his subject "The Pastor—Counselor in Industry." This subject is expected to draw particular interest because of the recent involvement of clergymen in attempts to organize textile workers in the South.

Erle Cocke Jr., assistant to the president, Delta Air Lines, speaks before lunch on the expansion of transportation facilities in the South; "Management Philosophy as a Basis for Management Improvements" is the title of the luncheon talk to be given by J. B. Joynt, manager, engineering department, American Enka Corp. The first afternoon session on Friday features marketing, and the speaker is M. S. Wigginton, vice-president and director, General Shoe Corp.

The theme of the conference is once again stressed in the final session. A round table, "Problems in an Expanding Industry," will be moderated by Dean Thomas Carroll, School of Business Administration, University of North Carolina. Panel members, all from the Young Presidents Organization Inc., are: Frank W. Hulse, Southern Airways Inc.; Fenton A. S. Gentry, Southern Fire & Casualty Co.; Albert L. Butler Jr., Arista Mills Co.; and Peter Knox, Knox Corp.

The conference is open to guests as well as S.A.M. members, and reservations may be made directly to Eugene J. Benge, McIntyre Building, Asheville, N. C.

Establish Awards For Beautifying Property

In order to recognize more concretely the widespread trend of industrial firms and service industries in landscaping and beautifying their buildings and properties with trees and shrubs, the American Association of Nurserymen announces a series of awards for outstanding landscaping of such properties.

The awards will take the form of engraved certificates "in recognition of superb achievement in industrial landscaping and beautification thus contributing to employee and civic pride in our American heritage."

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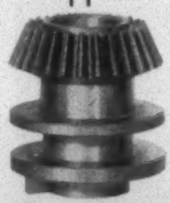

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lating to the awards may be obtained from Dr. Richard P. White, Executive Secretary of the American Association of Nurserymen, 635 Southern Building, Warshington 5, D. C.

Stress Need For Quality Control Program

"Installing Modern Quality Controls" was the subject of an address by Norbert L. Enrick of Werner Textile Consutants, New York City, presented April 10 before the Institute of Textile Technology at Charlottesville, Va. Mr. Enrick elaborated on the means available to management for attaining maximum results in the basic elements—design, workmanship and uniformity—governing quality of a manufactured product. Special emphasis was placed on increased product saleability and maintenance of the quality cost ratio at a favorable level. In addition to the technological aspects of modern mill controls, Mr. Enrick discussed such statistical quality control techniques as sampling plans and process controls charts, with which tools management and supervision can achieve a uniform product at minimum cost.

Slate Panel Discussion On Man-Made Fibers

Seven man-made fibers will be discussed by representatives of four major fiber producers at a panel during the 88th annual meeting of the National Association of Wool Manufacturers in New York City on May 7.

The subject is "The Place of Man-Made Fibers in the Field of Woolen and Worsted Yarn and Fabrics." The four speakers are Dr. Donald F. Holmes, manager, sales department, textile fibers department of E. I. du Pont de Nemours & Co. Inc., nylon, Dacron polyester fiber and Orlon acrylic fiber; Robert Smith, Acrilan sales manager, Chemstrand Corp., Acrilan acrylic fiber; Carl Setterstrom, sales manager, textile fiber department, Carbide & Carbon Chemicals Co., division of Union Carbide & Carbon Corp., Dynel acrylic fiber; and John Karrh, manager, fiber division, Virginia-Carolina Chemical Corp., Vicara protein fiber.

Joining the panel for the question and answer period after the talks will be S. J. Kennedy, research director, textile, clothing and footwear branch, research and development division, Office of the Quartermaster General; and Giles E. Hopkins, technical director, The Wool Bureau Inc. There also will be several woolen and worsted manufacturers on the panel. Dr. Milton Harris, Harris Research Laboratories, Washington, D. C., will be the moderator.

Student Contest To Design T.C.M.A. Seal

The Textile Chemical Manufacturers Association, seeking a fitting seal to represent the association and its membership, has offered a $100-prize for the best design submitted by students of ten textile schools. The contest, which closes April 30, was limited to those schools with student chapters of the American Association of Textile Chemists and Colorists. They are:

Bradford Durfee Technical Institute; Clemson College Textile School; Fairleigh Dickinson College; A. French Textile School, Ga. Tech; Lowell Textile Institute; New Bedford Textile Institute; School of Textiles, North Carolina State College; Philadelphia Textile Institute; Rhode

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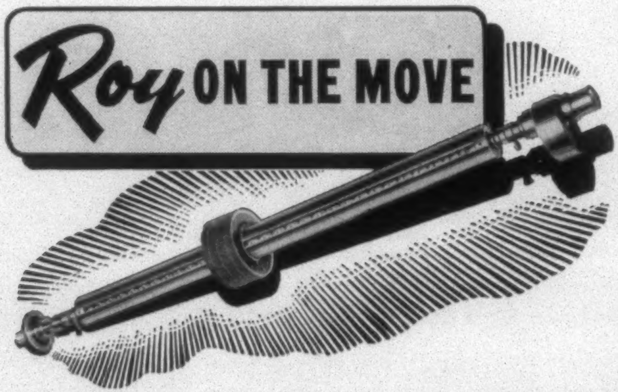

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Judges for the T.C.M.A. seal contest are: Lucien Bernhard, designer, Lucien Bernhard Studio, New York; Arthur Louis Finn, industrial designer, New York, and Norman Johnson, editor, *American Dyestuff Reporter*, New York.

As a background to help the students, the association pointed out that it was organized in 1931 as the Sulphonated Oil Manufacturers' Association by processors of oil for both the tanning and textile industries. In 1942, to express more adequately its field of activity, the association changed its name to the Processing Oil and Chemicals Association. Then late in 1952, the present name was adopted.

"At this time the primary objectives of the association were defined in detail, the most important of these objectives is the pledge of every member, and a condition of membership, to practice honesty and integrity in all dealings, and to maintain the quality claimed for each product," students were informed.

The winner of the seal contest will rceeive the $100 prize May 15 at a dinner at the Hotel Roosevelt, New York City, starting at 6 p.m. T.C.M.A. president, E. E. Rettberg Jr., will make the presentation. Among the speakers at the dinner will be J. Robert Bonnar, president of the American Association of Textile Chemists and Colorists. Joseph B. Evans, Dexter Chemical Corp., co-chairman of the arrangement committee with John M. Jester, Amalgamated Chemical Corp., will be the toastmaster. Other committee members are: J. Everett Allen, Arkansas Co. Inc.; Martin B. Friendman, Warwick Chemical Co., and J. J. McGuinness, Dexter Chemical Corp.

Wool Bureau Survey Issued In Book Form

In January 1950 National Fabric Research Laboratories Inc. was asked by the Wool Bureau Inc. "to survey the literature relative to the properties of the wool fiber, the relationship of these fiber properties to the functional characteristics of wool textiles, and to ascertain wool's relative position in the field of textile fibers." The Wool Bureau's central purpose in initiating the study was to accumulate a storehouse of information upon which to base intelligent, honest and effective promotional literature.

Naturally, "to ascertain wool's relative position in the field of textile fibers" involved a comparative study of the other fibers as well, and at once, the project took on gigantic proportions. National Research put some 400 investigators and almost three years into the work and in the end the

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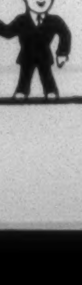

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data seemed to have taken on a useful form "—a form that seemed basic enough in outline to lend itself easily to additions and corrections in future revisions, and complete enough for those who have become concerned with the possibilities of applying basic chemical, physical, and engineering concepts to the design of textile products. Hence, the decision was made, and permission was granted by the Wool Bureau Inc. to publish the survey as a book." The book, written by Ernest R. Kaswell, is entitled *Textile Fibers, Yarns, and Fabrics.*

Early in the work it became necessary to define the targets which the investigators would choose for analysis as "those inherent fiber properties, and those yarn and fabric structural geometry or 'form' effects, which have an influence, solely or in interaction, upon function properties." Thus, the book is conveniently divided into two sections—Part A dealing with inherent fiber properties and Part B treating the geometrical or "form" factors. By inherent fiber properties the author means "those physical and chemical properties which characterize it per se, such as: density, refractive index, tenacity, rupture elongation, elastic modulus, resistance to chemicals," and by form factors he means "those effects resulting from the conversion of the fiber into a textile structure: yarn denier, density, twist, diameter, fabric weight, thickness, thread count, weave." Both of these factors, of course, influence functional properties such as fabric luster, crease retention, abrasion resistance, resilience, etc.

Part A of the book contains chapters entitled "The Tensile Properties of Fibers; "The Tensional Repeated Stress Properties of Fibers;" "Fiber Stresses and Deformations Other Than Tensile;" "Friction, Moisture Absorption Properties of Fibers;" "Thermal Properties of Fibers;" "The Stability of Fibers to Environmental Conditions;" "The Microbiological Properties of Fibers;" and "The Dyeing Characteristics of Fibers."

Part B discusses "Yarn and Fabric Geometry;" "Compressional Resilience;" "Thermal Transmission Properties of Textile Structures;" "Air Permeability;" "Moisture Transmission;" "Water Repellency and Water Resistance;" "Crease Retention, Wrinkle Resistance, and Dimensional Stability;" "Abrasion and Wear Resistance;" "Felting and Shrinkage;" "Fabric Soiling, Soil Removal, Laundering, and Dry Cleaning;" "Fabric Handy;" "Fabric Drape;" and "Luster."

Actually, however, none of the chapters are written for experts in their respective fields, but rather they are written

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Permanent Resin Finishes—all fibers
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for the scientifically or technically trained individual who does not have fluent knowledge of the subject being discussed. For example, the chapter on dyeing may appear elementary to the dye-application chemist, and likewise, the section of microbiology may seem extremely fundamental and over-long to the biologist. However, the dye-application chemist should find the chapter on microbiology an informative reference and the biologist should get the same benefit from the chapter on dyeing.

While Kaswell's comments and interpretations are interspersed throughout the book, providing, among other things, the transition necessary to move ideas in their logical sequence, the work is "actually an annotated and interpretive bibliography describing and discussinng the research results of some 400 investigators."

In his preface, the author points out that "a number of subjects are freely acknowledged to be either omitted or abridged," and that the physical and engineering approaches predominate, the chemistry of the fibers being outside the scope of the book. Also, he says, time did not permit thorough discussion on static electricity, pilling and wicking, and no attention is given to fiber crimp, tear resistance and fiber blending. However, in future revisions which will be necessary in order to keep the book current as a reference, the author expresses the intention of including sections on the above omissions as well as new information on the subjects already covered.

Ball Presented H. D. Smith Memorial Medal

The theory that textile fibers are engineering materials and can be utilized for specific end-uses has now been widely accepted, Prof. Herbert J. Ball of Lowell (Mass.) Textile Institute, said last month in the course of ceremonies during which he received the Harold DeWitt Smith Memorial Medal.

Professor Ball received the medal from Committee D-13 on Textiles of the American Society for Testing Materials for his work in the engineering and utilization of textile fibers.

Mr. Ball received the medal from William D. Appel, National Bureau of Standards, Washington. He was eulogized in a talk, "The Medalist, The Scientist," by A. G. Ashcroft of Alexander Smith Inc., Yonkers, N. Y., and by Giles Hopkins of The Wool Bureau, who spoke on "The

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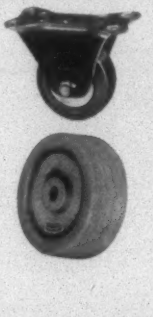

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Medalist, The Man." Richard T. Kropf of Belding Heminway Co. Inc., was toastmaster.

Mr. Ball was selected for the honor by a medal committee composed of Mr. Appel as chairman; Oliver P. Beckwith, Alexander Smith Inc.; Arthur G. Scroggie of E. I. du Pont de Nemours & Co. Inc., Wilmington, Del.; Mr. Kropf; and B. L. Whittier of the School of Textiles, North Carolina State College, Raleigh, N. C.

A new general method for measuring fabric thickness was outlined to Subcommittee B-1, Committee D-13 of A.S.T.M. The method was proposed by H. F. Schiefer of the National Bureau of Standards. He said that is was based on a system of four ranges that have different diameter presser feet and five intermediate pressures. Formulas for calculating compressibility, resilience and thermal transmission were given.

L. E. Fourt, Harris Research Labs., Washington, D. C., chairman of the fabric group, said that the method would go to letter ballot. A concensus seemed to think that the method was a considerable improvement over the dead weight method utilizing heavy pressure and a small foot.

"Liaison work work will be conducted with Subcommittee A-1 on an all-fiber method to determine bundle strength," said Dr. Helmut Wakeham, Textile Research Institute, Princeton, N. J., and chairman of the fiber group. According to Mr. Wakeham, Subcommittee A-1 is doing considerable work along these lines in wool and cotton.

Rate of loading and time of break in the yarn group was discussed by H. A. Mereness, Institute of Textile Technology, Charlottesville, Va. Dr. Mereness declared his task group had found a 20-second break was ideal. According to findings, inclined plane machines could be accommodated to this and he commented that many new testers provided for speed changes. This standard is now on the books and the task group was discharged.

George Hotte, A. M. Tenney Associates, chairman of the yarn group, said that a list of the eveness of yarn definitions were being sent to Subcommittee B-2 on definitions. It was also decided to submit the definitions to a letter ballot in B-2.

A report on the analysis of mixtures containing Vicara was given by Jack Turer, L. Sonneborn Sons Inc., Belleville, N. J. Mr. Turner said this did not mean the work was complete but that trends were beginning to show. Vicara was tested in binary mixtures with nylon, wool, acetate, viscose and cotton.

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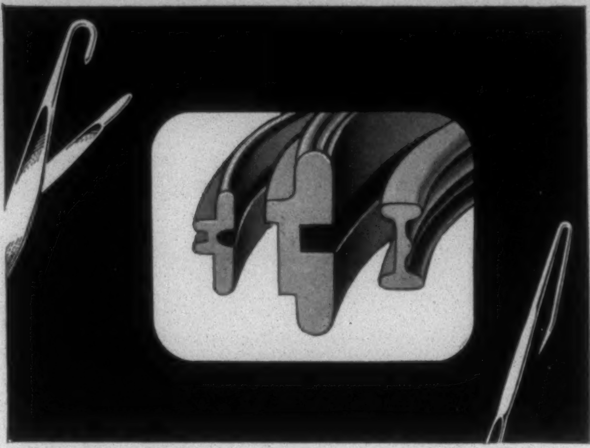

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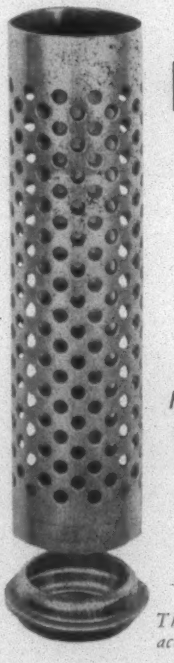

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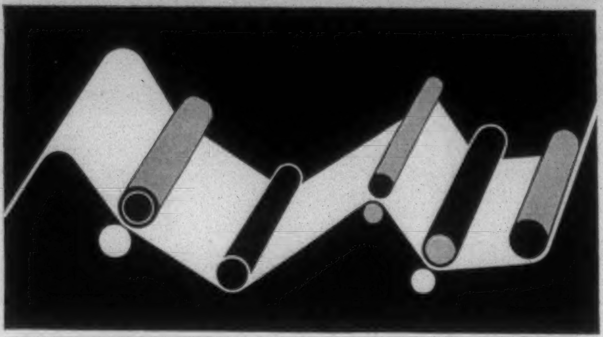

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and chairman of the chemical group, said a letter ballot had revealed an overwhelming desire to revise Standard D276 dealing with qualitative identification of new fibers.

In the session on performance tests, C. L. Simon, Industrial By-Products & Research Corp., gave a progress report on abrasion resistance. He praised the work that was being done especially in the shirt unit.

Occupational Vision Conference May 7-8

Those in the textile industry concerned with improving and conserving vision of employees have been invited to attend the fifth Occupational Vision Congress to be held May 7-8 at the Georgia Institute of Technology, Atlanta. Topics to be discussed will probably be of particular interest to personnel directors, employee relations directors, safety engineers, illuminating engineers and industrial nurses. Authorities in each of the subjects listed for discussion will be on hand to furnish case studies and answer questions of all types dealing with industrial vision programs and problems. Those wishing additional information concerning the congress may contact C. C. Taylor, Coordinator Short Courses and Conferences, Georgia Institute of Technology, Atlanta, Ga.

List Committees For Yarn Group Outing

Committee members of the Carolina Yarn Association, who will serve this year, are made known by Elliott J. Neal, Aberfoyle Mfg. Co., Belmont, N. C., association president.

These groups will function mainly in connection with the organization's annual outing May 14-16, in Pinehurst, N. C. Committee members, who are from Charlotte, N. C., unless otherwise indicated, are:

Golf: W. D. Clark, Celanese Corp. of America, chairman; H. Gordon Kenna Jr., Duffy Silk Co.; John Reid, American Viscose Corp.; Derrick Schoenfield, E. I. Du Pont de Nemours & Co. Inc. acetate sales, and Archer E. D. Booker, A. M. Tenney Associates Inc., Greensboro, N. C.

Invitations: Pen Wilson, Pen Wilson Co., chairman; Donald R. Jonas, Johnston Mills Co.; Donald Fisher, Cosby & Thomas, and Charles R. Ibach Jr., Pen Wilson Co.

Prizes: W. J. Yates, Johnston Mills Co., chairman; John F. Watlington Jr., Wachovia Bank & Trust Co., and MacDaniel Jackson, American Viscose Corp.

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Skeet: W. C. Dodson, Smith, Drum & Co., Philadelphia, chairman; James Y. Rogers Jr., John L. Stickey Co., and F. W. Warrington, F. W. Warrington Co.

Textile Technologists Group Changes Name

The American Association of Textile Technologists has changed its name to the American Association For Textile Technology. The name change was approved by a membership vote of 311 in favor of the change and 58 opposed. Officials emphasized that the name change does not in any way affect the membership requirements.

Rayon Information Center Is Established

Establishment of an industry-wide rayon information and service program for consumers, retailers, mills and manufacturers was announced recently by the rayon producing industry. As a first step, a Rayon Information Center has been established at 670 Fifth Avenue, New York City. The new program has an initial appropriation of $750,000 and may be increased substantially as the program develops.

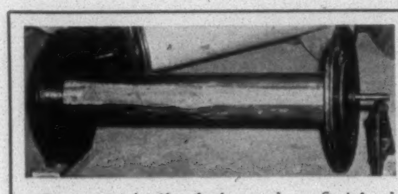
As background for the establishment of the center, it was pointed out that rayon, the first commercially successful man-made fiber, has virtually doubled production during each five-year period since 1925 and now ranks second in poundage utilized among all textile fibers. It was pointed out, further, that the industry's research is continuing to improve the product, develop new uses and expand the market.

At the retail level, it was stressed, rayon now accounts for "an impressive share of sales dollars in items ranging from sheerest fabrics to heavy duty tires." Objectives of the Rayon Information Center were defined as follows:

(1) To provide service and information to consumers on how to get maximum utility out of rayon garments and fabrics.

(2) To develop merchandising opportunities for retailers through special projects, informational assistance, sales aids and sales training.

(3) To work with mills, converters, dyers and finishers,



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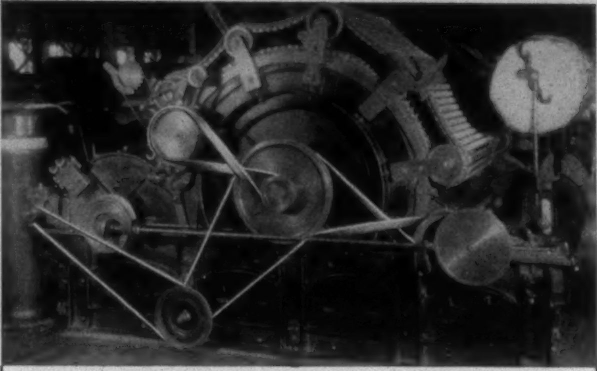

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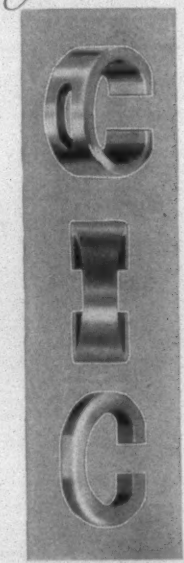

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cutters, designers and others to make the most of rayon's inherent qualities and to encourage new styles, constructions and fabric developments.

Members of an industry task force committee responsible for planning and developing the new program are: E. F. Altmaier, manager, advertising and promotion, textile fibers department, E. I. du Pont de Nemours & Co. Inc.; James C. Fortune, advertising manager, American Bemberg and North American Rayon Corp.; John K. Hanson, manager, advertising and promotion, American Enka Corp.; Charles W. Rice Jr., advertising manager, American Viscose Corp.; and Alvin A. Schoenberger, sales manager, cloth division, Industrial Rayon Corp.

"This will be a positive program to extend the importance and versatility of rayon in the expanding market for all man-made fibers," it was stated by the task force committee. "New developments in rayon open up new opportunities for utilizing the creative talents of designers and consumers. The rayon information program will demonstrate and dramatize these opportunities as widely as possible through all appropriate media, including both trade and consumer advertising."

Eldean-Bugli-Chesrown Inc., business development organization has been retained to operate the new Rayon Information Center.

Last Quarter Best For Carded Sales Yarns

The last quarter of 1952 was the best operating quarter for the carded cotton sales yarn industry since early 1951 as a result of higher production and further reduction of inventories, the National Production Authority Textile Division reported in its final defense study of mill operations.

Fourth quarter production of 163,595,000 pounds of carded cotton sales yarn was the highest for 1952 and 13 per cent above the 144,647,000 pounds produced in the preceding quarter. Output in the fourth quarter of 1952 also exceeded the 1951 average quarterly production of 162,662,000 pounds and the 1952 average of 153,273,000 pounds.

Shipments in the October-December period continued to exceed production, as in the third quarter of 1952, indicating a further reduction of producers' inventories.

The report shows a greater percentage increase in machine activity than in production, reflecting a continuation of the shift shown in the preceding quarters toward finer counts of yarn. Spinning spindles in place average 109.3 hours per week for the fourth quarter, compared with 90.9 hours per week for the third quarter of 1952. Twisting spindles averaged 88.1 hours per week during the quarter, slightly less than the third quarter average of 88.6 hours per week.

This report is the last in a series of quarterly studies made in 1951 and 1952 to facilitate defense planning and

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military purchases of textiles. The collection of reports from spinners of carded cotton sales yarn was discontinued with the quarter ending Dec. 31, 1952.

The summary provides a comparison of production, shipments and machinery activity between individual quarters and the years 1951 and 1952. These indicate that the total 1952 production of 613,094,000 pounds was 5.8 per cent less than 1951 production of 650,648,000 pounds.

N.P.A. pointed out that this comparative uniformity of annual production for the two years shows that, as the defense needs were reduced, civilian consumption increased, so that by the end of 1952 the quarterly production was running at a rate almost equal to that for the year 1951 when defense needs were paramount.

It is significant, N.P.A. said, that the hours of operation increased toward the end of 1952 to a point more nearly equal to the average for 1951. However, the peak of hours of operation and for pounds produced was in the first quarter of 1951 when urgent defense needs were being met.

N.P.A. pointed out that the results shown by two full years' reports indicate that the carded sales yarn spinners have the capacity, given adequate labor, raw materials, and other supplies, to meet all defense and essential civilian requirements even under emergency conditions. This is confirmed by the fact that for the first quarter of 1951, without undue presure, the mills produced 194 million pounds of yarn, or almost the peak production reached during World War II.

No Plans To Subsidize Cotton Exports

Secretary of Agriculture Benson stated April 9 the government has no plan under consideration to subsidize the export of American cotton. He told a Senate Agriculture Committee hearing on the export and import problem that questions have been asked as to whether such a program might be contemplated.

Senator Eastland (D., Miss.) said speculation as to the possibilities of such a subsidy was tending to keep U. S. foreign buyers out of the market in anticipation of lower prices. The speculation followed a recent appearance of Mr. Benson before the same committee at which he said, in answer to queries, that an export subsidy would provide one way of boosting foreign sales of cotton.

"A cotton export subsidy program is not even under consideration for the current crop, nor in the foreseeable future," the secretary said. Senator Eastland said he welcomed Mr. Benson's clarification because of the effect the speculation was having on sales, but he declared he believed it would be necessary to adopt export subsidies eventually.

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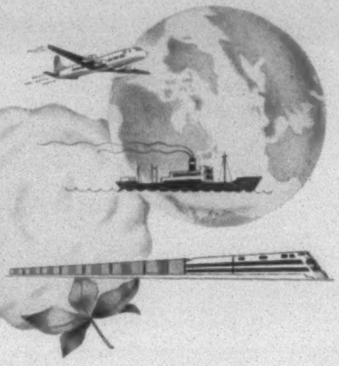

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Before Closing Down

– TEXTILE INDUSTRY HAPPENINGS AS THIS ISSUE WENT TO PRESS –

PERSONAL NEWS

J. B. Powell has resigned as superintendent of the Lockhart (S. C.) Plant of Monarch Mills. Mr. Powell, a member of the board of governors of the Southern Textile Association, was superintendent of Erlanger Mills Inc., Lexington, N. C., prior to joining Monarch. No successor has been announced for the Lockhart position.

W. Earl Crenshaw has been elected vice-president and general manager of Dixie Mercerizing Co., Chattanooga, Tenn., and assumes his new position May 1. For the past seven years Mr. Crenshaw has been with Springs Cotton Mills Co. as general superintendent of carding and spinning and a member of the board. At Dixie he will work with B. P. Barnes, vice-president of finishing, and Robert Cochran, vice-president of spinning.

J. J. Carrick has joined Mooresville (N. C.) Mills as manufacturing superintendent. The new superintendent was associated with Dan River Mills for ten years where he had duties in both manufacturing and finishing. During the last three years with Dan River, he assumed responsibility for all finishing and sewing. Last November, Mr. Carrick left Dan River to become affiliated with the U. S. Rubber Co. as a consultant in that company's consumer fabric division.

S. C. Stimson of Greenville, S. C., who has represented the Bahnson Co. for many years, is recuperating from a recent illness. Mr. Stimson is at Morrell Hospital, Lakeland, Fla., and will be pleased to hear from his friends.

C. B. Mahaffey has assumed new duties as assistant superintendent of the Hillside Plant and John M. Blackman has become superintendent of the Dye Plant in recent transfers at the HDV Division of Callaway Mills Co., LaGrange, Ga.

B. F. Martin is now weave room overseer at Aiken Mills, Augusta, Ga., weaving unit of United Merchants & Manufacturers Inc. Before transferring to Augusta, Mr. Martin was shift overseer at the new U.M.&M. plant at Clarkesville, Ga., and prior to that was associated with Burlington Mills Corp.

Malcolm G. Jones, formerly with the Du Pont Co., has been elected president of Robbins Mills Inc. succeeding William P. Saunders, president since last May, who was elected vice-chairman. Mr. Jones, associated with Du Pont for 24 years, was director of sales of synthetic fibers when he resigned to accept the Robbins presidency. Robbins' plants are located at Robbins, Red Springs, Aberdeen and Raeford, N. C., and Clarksville, Va.

Fred T. Lawson has resigned as manager of the Harris Plant of Greenwood (S. C.) Mills to accept a position in the Charlotte, N. C., area. . . . N. R. Whitener, formerly planning and production manager, has been named to succeed Mr. Lawson.

Curtis Ramsey, formerly card room overseer in the Prince Plant of Waverly Mills Inc., Laurinburg, N. C., has been promoted to administrative assistant to the general superintendent and his position in the card room has been filled by Olin D. Stroud, formerly with Burlington Mills Corp. at St. Pauls, N. C.

R. F. Bagwell Jr. of Dalton, Ga., has been appointed to the New York and New Jersey Lubricant Co. staff as a lubricant engineer in the textile division. Mr. Bagwell attended Clemson College where he majored in textile engineering. He has approximately ten years of experience in all phases of cotton manufacturing from carding to weaving. Mr. Bagwell first went to work for D. E. Converse Co., Glendale, S. C., as overhauler and loom fixer. After leaving Converse, he went with Clover (S. C.) Spinning Mills Co. as overseer and assistant to superintendent. For the past five years has been employed by the American Thread Co., Clover, S. C., and Dalton, Ga., as general supervisor. Effective immediately, Mr. Bagwell will render technical assistance to textile mills throughout the South.

Louis Sutton Jr., who has been production manager at the Charlotte, N. C., shops of Whitin Machine Works, will on May 1 become affiliated with R. S. Dickson & Co. Inc. of Charlotte, as vice-president of its affiliated concern, the Ruddick Co.

John W. Clark, president and treasurer of Randolph Mills Inc., Franklinville, N. C., and A. Alex Shuford Jr., president and treasurer of Shuford Mills Inc., Hickory, N. C., have been nominated to serve on the board of trustees of the Greater University of North Carolina. Mr. Clark has been a member of the board since 1933.

Joe Major has resigned as supervisor of weaving at the Cascade Rayon Plant of Burlington Mills Corp. at Mooresville, N. C., and has purchased the Kelly Brothers' Men's Shop.

The textile fibers department of the Du Pont Co. announces the promotion of Dr. Lester S. Sinness to director of sales for its five fibers. He has been in charge of manufacture of Orlon acrylic fiber and acetate. The move consolidates two sales positions left vacant by the recent death of P. F. Brown who headed cellulosic fiber and rubber industry sales, and the resignation April 9 of M. G. Jones who directed sales of synthetic fibers. Mr. Jones resigned to become president of Robbins Mills. Operating under T. H. Urmston, the department's general sales director, Dr. Sinness will head the sales of rayon, acetate, Orlon acrylic fiber, Dacron polyester fiber and nylon. Dr. Sinness joined Du Pont as a research chemist in 1933. . . . Direction of the manufacture of Orlon and acetate will now be consolidated under William T. Wood, already director of manufacture of Dacron. . . . Other changes in the Du Pont textile fibers department include the promotion of Davis L. Lewis Jr. to the new post of assistant manager of textile rayon sales and Norman H. Winde to sales personnel manager, succeeding Mr. Lewis. Mr. Lewis has been associated with Du Pont since 1933, and formerly was district manager of rayon and later nylon sales at Charlotte, N. C.

Eugene Johnson has been named purchasing agent for Lydia Cotton Mills and Clinton Cotton Mills, Clinton, S. C., succeeding Bailey Williams, who is resigning effective May 1. Mr. Johnson has worked with the Lydia and Clinton mills previously, from 1930 until 1942, having served as purchasing agent from 1936 to 1942.

Howard D. Townsend, a veteran of 52 years in the textile field, is retiring May 1 from his post as superintendent of Dacotah Cotton Mills Inc., Lexington, N. C. Mr. Townsend began his textile career with the old Patterson Mill at Concord, N. C.

Richard T. Osteen of Greenville, S. C., has been appointed to represent Emmons Loom Harness Co. in South Carolina. He will handle the complete line of Emmons loom harness equipment and will assist mill operators on problems involving heddles, heddle frames, reeds, etc. For the past 25 years Mr. Osteen has sold and serviced weaving accessories, especially heddles and frames, as Southern representative of Walker Mfg. Co.

W. M. Ford has resigned as treasurer and general manager of Laurens (S. C.) Mills, a unit of Deering, Milliken & Co., and has moved to Chapel Hill, N. C., where he will engage in farming and merchandising. Alan B. Sibley of Greenville, S. C., vice-president of Judson Mills and several other mills in the Deering, Milliken group, has been elected treasurer of Laurens Mills succeeding Mr. Ford. . . . George Asnip, manager of Gerrish Milliken Mills at Pendleton, S. C., has assumed Mr. Ford's former duties as general manager at Laurens. Succeeding Mr. Asnip at Pendleton is L. J. Fisher Jr., who was transferred from Kingsley Mill Corp., Thomson, Ga., where he was superintendent. . . . W. E. Thrailkill, with Kingsley since its organization in 1950, has been promoted to superintendent of that plant to succeed Mr. Fisher.

Pate Williams has been promoted to the post of assistant superintendent of Dixie Mills Inc., LaGrange, Ga. Mr. Williams, formerly manager of the cost department, has been associated with Dixie Mills since November 1929.

Ralph Barnard, formerly overseer at the St. Pauls, N. C., pilot plant of Burlington Mills Corp., has joined the staff of the department of textile research at the North Carolina State College School of Textiles as a research supervisor.

Fred Phil, formerly a chief designer and superintendent of dyeing and finishing at Russell Mfg. Co., Middletown, Conn., will join the Talon Inc. organization on May 1. His first assignment will be to study Talon's present dyeing methods at its Hamden, Conn., plant. Upon completion of Talon's new tape mill at Stanley, N. C., Phil will take over as superintendent of dyeing operations there.

J. N. Summerell, general superintendent of the Cramerton (N. C.) Division of Burlington Mills, has announced that he is retiring from his position. While his plans are not yet complete, Mr. Summerell has indicated that he will continue to take an active part in the textile industry. Mr. Summerell has been affiliated with the Cramerton textile plants since 1919, and since 1944 has served as general superintendent. When Burlington Mills acquired the Cramerton organization in 1946, Mr. Summerell retained his position as general superintendent with broad supervision over most of the manufacturing operations.

Henry H. Richardson *(left)* has been appointed sales manager for Universal Winding Co., Providence, R. I., in charge of all domestic sales of the firm's machinery. Mr. Richardson became identified with Universal's sales activities in 1938, selling in the New England territory. W. S. Warren, vice-president of Universal, who has included the position of sales manager in his duties until the present time, will continue to exercise general supervision over the sales department.

MILL NEWS

McComb, Miss. — A $150,000 Balance Agriculture With Industry bond issue for construction of a building to be used by McComb Yarn Co., a subsidiary of McComb Mfg. Co., was overwhelmingly approved by the citizens of McComb in a vote taken April 15. The vote was 1,671 to 83. Expected to be in operation within three months, the yarn plant is expected to provide work for 100 additional persons. It will be the first textile throwing plant in the McComb area. To be erected adjacent to the existing plant operated by McComb Mfg. Co. on U. S. Highway 51, the new building will provide the company with 100,000 square feet of additional floor space on which will be installed $150,000 worth of machinery.

Siluria, Ala.—Buck Creek Cotton Mills was damaged extensively in a heavy windstorm which swept Alabama April 19. J. T. Phillips, president of the firm, said some 800 employees would be made idle during the six to eight months' period required for rebuilding and repairs. The upper half of the main building was swept away and 23 houses in the mill village wrecked. Three warehouses were demolished, with extensive wind and water damage to finished and unfinished goods and machinery. There was no immediate estimate of total loss available.

Toccoa, Ga.—Ground was broken April 9 for the new $7,000,000 thread mill for Coats & Clark Inc. three miles south of Toccoa. This brings the number of Coats & Clark mills in Georgia to seven and is the second in Toccoa. The plant will be of modern design and when completed will be equipped with the newest and most

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WALLACE, S. C. — The Delta Finishing Plant Division of J. P. Stevens & Co. Inc., located at Wallace, has completed a new major warehouse addition at the rear of the original structure. Both this addition and the original plant were built by the Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala. A part of the building includes storage area.

WINSTON-SALEM, N. C.—The Chamber of Commerce reported recently that a new textile company which eventually may employ about 500 workers with a payroll of more than $1,000,000 a year is planning to locate in Winston-Salem. The civic group said it could not reveal the name of the company until plans are completed.

SPINDALE, N. C.—Stonecutter Mills Corp. has started work on rebuilding its dyehouse. The old building, built in 1936, is obsolete and must be replaced, officials said. This renovation project was planned a few years ago, but because of the defense emergency and the shortage of steel, it has been delayed until this time. The plans are to build around the present building in order that the operation of the dyehouse will not be interrupted any more than is necessary. As portions of the new building are completed, the machinery will be moved so as to continue in operation during the period of construction.

STAUNTON, VA.—The Celanese Corp. of America announced April 14 that it will close its Staunton plant around June 1. In a letter to employees the company said that another industrial concern will probably buy the million-dollar plant, thus providing jobs for the approximately 450 persons now employed at Celco. According to Harold Blanke, president of the company, the Staunton plant was set up during World War II when textile pressures warranted an expansion of the weaving industry. Since then, Mr. Blanke said, the situation has changed and there is no longer the demand that there once was. Mr. Blanke indicated, however, that the plant at Hopewell, Va., which has dyed and finished the goods produced at Staunton, will not be affected.

SHELBY, N. C.—Marion Yarn Mills Inc. of Boiling Springs has been taken over by Esther Mill Corp. of Shelby, it was announced April 14. Frank Love and Frank Love Jr., president and secretary-treasurer, respectively, of Marion Yarn Mills, have resigned. The resignations were effective March 31; no successors have been named. The mill, which manufactures carded and combed yarn, had been on a full production schedule. The April 14 announcement said that no major change in the mill operation is planned at present.

SCOTTDALE, GA.—Bids were to have been received April 28 at the office of The McPherson Co., Greenville, S. C., on an addition to the main mill, Scottdale Mills, Scottdale.

Index to Advertising

Page

—A—

Abbott Machine Co. 44
Aldrich Machine Works 37
Allen Beam Co. 83
Allen Warper Co. 81
Amercoat Corp. 5
American Viscose Corp. 17
Antara Chemicals Div. of General Dyestuff Corp. 35
Armstrong Cork Co. 46 and 47
Arnold, Hoffman & Co., Inc. 29

—B—

Bahan Textile Machinery Co. 39
Baily & Co., Inc., Joshua L. 125
Barber-Colman Co. 10
Barkley Machine Works 114
Barreled Sunlight Paint Co. 21
Barry & Co., Inc., B. J. 124
Best & Co., Inc., Edward H. 81
Biberstein, Bowles & Meacham, Inc. 125
Bridge & Sons Co., John 100
Bryant Supply Co., Inc. 95
Bullard Clark Co., The 135
Burkart-Schier Chemical Co. 120
Butterworth & Sons Co., H. W. 89

—C—

Carolina Refractories Co. 118
Carter Traveler Co. (Div. of A. B. Carter, Inc.) 75
Cen-Tennial Cotton Gin Co. 97
Chapman Electric Neutralizer Co. 109
Chemical Processing Co. 19
Clinton Foods Inc. 95
Cole Engineering Co. 110
Columbus Textile Specialty Co. 112
Commercial Factors Corp. 3
Creasman Steel Roller Machine Co. 115
Crompton & Knowles Loom Works 9
Crompton-Richmond Co., Inc. (Factoring Div.) 113
Cronland Warp Roll Co., Inc. 123

—D—

Dayton Rubber Co., The 14 and 15
Dillard Paper Co. 41
Dolge Co., The C. B. 105
Draper Corp. 2
Dronsfield Bros. 116

—E—

Eaton & Bell 130
Engineering Sales Co. 87
Excel Textile Supply Co. 102

—F—

Ferguson Gear Co. 112
Forbes Co., Walter T. 109
Foster Machine Co. 16

—G—

Gaston County Dyeing Machine Co. 52
Gastonia Brush Co. 120
Gastonia Mill Supply Co. 122
Gastonia Textile Sheet Metal Works, Inc. 4
Gossett Machine Works 25
Greensboro Loom Reed Co. 133
Gulf Oil Corp. of Pa. 43

—H—

Houghton & Co., E. F. 7
Howard Bros. Mfg. Co. 33

—I—

Ideal Industries, Inc. 30
Iselin-Jefferson Co., Inc. 124

—J—

Jacobs Mfg. Co., The E. H. (Northern and Southern Divisions) 135
Jarrell Machine Co., W. G. 85
Jarrett & Co., Cecil H. 85
Jenkins Reneedling Co. 119

—K—

Keever Starch Co. 79
Kluttz Machine & Foundry Co. 116

Page

—L—

Landis, Inc., Oliver D. Front Cover and 123
Laurel Soap Mfg. Co., Inc. 119
Loper Co., Ralph E. 112

—M—

McLeod Leather & Belting Co. 32
Manton Gaulin Mfg. Co., Inc. 51
M-B Products 74
Morris Fur Co. 122

—N—

National Aniline Div., Allied Chem. & Dye Corp. 11
National Ring Traveler Co. 123
National Starch Products, Inc. 45
N. Y. & N. J. Lubricant Co. 24
Norlander-Young Machine Co. 116
North, Inc., Frank G. 122

—O—

Oakite Products, Inc. 114
Orr Felt & Blanket Co., The Front Cover

—P—

Pabst Sales Co. 115
Paddock Co., J. C. 74
Pease & Co., J. N. 124
Perfecting Service Co. 101
Perkins & Son, Inc., B. F. 34
Philadelphia Quartz Co. 103
Piedmont Machine Shops, Inc. 118
Piedmont Processing Co. 109
Precision Gear & Machine Co. 95

—R—

Ragan Ring Co. 20
Raybestos-Manhattan, Inc.
General Asbestos & Rubber Div. 22
Raymond Service, Inc., Chas. P. 130
Rice Dobby Chain Co. 83
Robert & Co. Associates 109
Rose & Co., E. F. 111
Roy & Son Co., B. S. 118

—S—

Saco-Lowell Shops, Inc. 54
Signal Thread Co., Inc. 117
Sims Metal Works 36
Sinclair Refining Co. 27
Sipp-Eastwood Corp. 83
Sirrine Co., J. E. 125
Sonoco Products Co. 69
Southern Electric Service Co. 85
Southern Textile Works 130
Specialty Hardwoods (Subsidiary of Coleman Co.) 81
Staley Sales Corp., A. E. 49
Steel Heddle Mfg. Co. and Southern Shuttles Div. 22 and 23
Sterling Ring Traveler Co. 114
Stevens & Co., Inc., J. P. 124
Stewart Machine Co. 121
Strandberg Engineering Laboratories 26

—T—

Tatem Mfg. Co. 108
Textile Apron Co. 111
Textile Shops, The 103
Thomaston Mills 120
Tide Water Associated Oil Co. 8
Todd-Long Picker Apron Co. 110
Tool Service Engineering Co. 121

—U—

U S Bobbin & Shuttle Co. 93
Universal Winding Co. (Atwood Division) 71

—V—

Valentine Co., J. W. 125
Veeder-Root, Inc. Back Cover
Vesco, Inc. 120
Victor Ring Traveler Co. 28

—W—

WAK Industries 130
Walton & Lonsbury 6
Warwick Chemical Corp. 31
Westvaco Chem. Div. Food Machy. & Chem. Corp. 13
Whitehead Engineering Co. 104
Whitin Machine Works 53
Whitinsville Spinning Ring Co. 121
Wonalancet Co. 110

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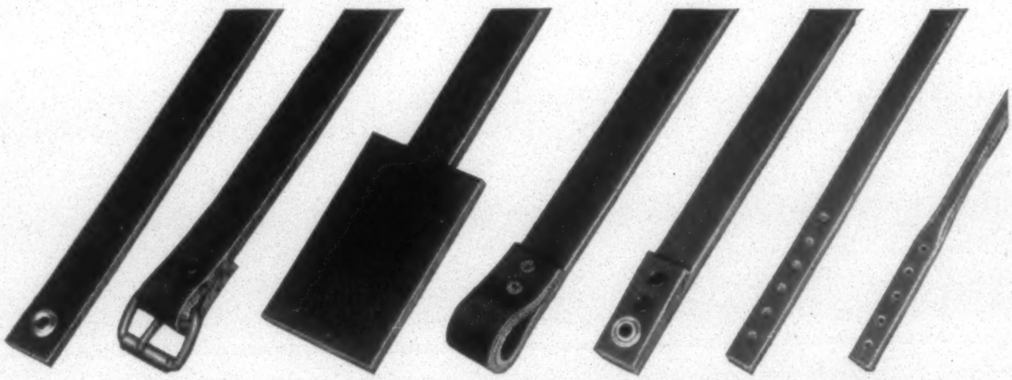

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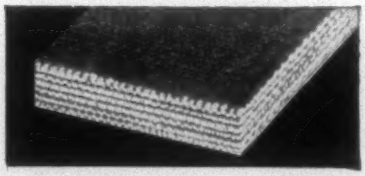

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